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New Types Of Financing For A New Financier: A Theory Of Chinese Development Finance

Abstract

Why are some development finance packages issued on stricter terms than others? I investigate this question for the important case of China using a mix of quantitative methods and case studies. Chinese organizations use a wide variety of financial arrangements including grants, zero-interest loans, freelance contracting, equity investment, tied loans, and resource-backed loans. In the event that loans are not repaid, China then turns to a secondary set of options including debt forgiveness; debt restructuring or deferment; debt-equity swaps; and non-renegotiation. Many of these tools have not been treated in depth by the literature to date. I address this gap by sorting them into a hierarchy of strictness, finding that Chinese diplomatic and geostrategic motivations are associated with laxer terms, but that Chinese commercial interests are associated with stricter ones. I further find that geostrategic and commercial interests become associated with progressively stricter terms as political risk increases. These findings expand existing theories of development finance to better fit a major actor which puts greater emphasis on commercial interests in its development finance policy and uses very different modalities of domestic governance and external engagement.

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DEVELOPMENT FINANCE

Scott Caldwell Wingo

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Presented to the Faculties of the University of Pennsylvania

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Degree of Doctor of Philosophy

2020

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NEW TYPES OF FINANCING FOR A NEW FINANCIER: A THEORY OF CHINESE
DEVELOPMENT FINANCE

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Scott Caldwell Wingo

To Richard, Zazelle, Jay, and Frances.

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ABSTRACT

NEW TYPES OF FINANCING FOR A NEW FINANCIER: A THEORY OF CHINESE
DEVELOPMENT FINANCE

Scott Caldwell Wingo

Avery Goldstein

Why are some development finance packages issued on stricter terms than others? I investigate this question for the important case of China using a mix of quantitative methods and case studies. Chinese organizations use a wide variety of financial arrangements including grants, zero-interest loans, freelance contracting, equity investment, tied loans, and resource-backed loans. In the event that loans are not repaid, China then turns to a secondary set of options including debt forgiveness; debt restructuring or deferment; debt-equity swaps; and non-renegotiation. Many of these tools have not been treated in depth by the literature to date. I address this gap by sorting them into a hierarchy of strictness, finding that Chinese diplomatic and geostrategic motivations are associated with laxer terms, but that Chinese commercial interests are associated with stricter ones. I further find that geostrategic and commercial interests become associated with progressively stricter terms as political risk increases. These findings expand existing theories of development finance to better fit a major actor which puts greater emphasis on commercial interests in its development finance policy and uses very different modalities of domestic governance and external engagement.

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Chapter 1

Introduction

Narratives surrounding China's contributions to global development finance are frequently contentious and contradictory. Proponents see it as more even-handed in its treatment of fellow developing countries, contrasting its hands-off approach with World Bank or Western organizations' imposition of economic policy requirements as a condition for loans. These observers usually see China's emphasis on horizontal "business" dealings over vertical donor-recipient "aid" relationships as an empowering step in the right direction (Moyo, 2009; State Council of the People's Republic of China [中华人民共和国国务院], 2011). Pessimists counter that China's focus on large loan packages over grants and more traditional aid arrangements is essentially exploitative and aimed at securing access to natural resources or even geostrategically important logistical facilities at host countries' expense (Abi-Habib, 2018; Naím, 2009).

Many of these tropes are based on particular components of China's overseas development finance but rarely reflect all of it. Chinese construction of hospitals, schools, and much-needed infrastructure at host countries' request is very real and often beneficial. At other

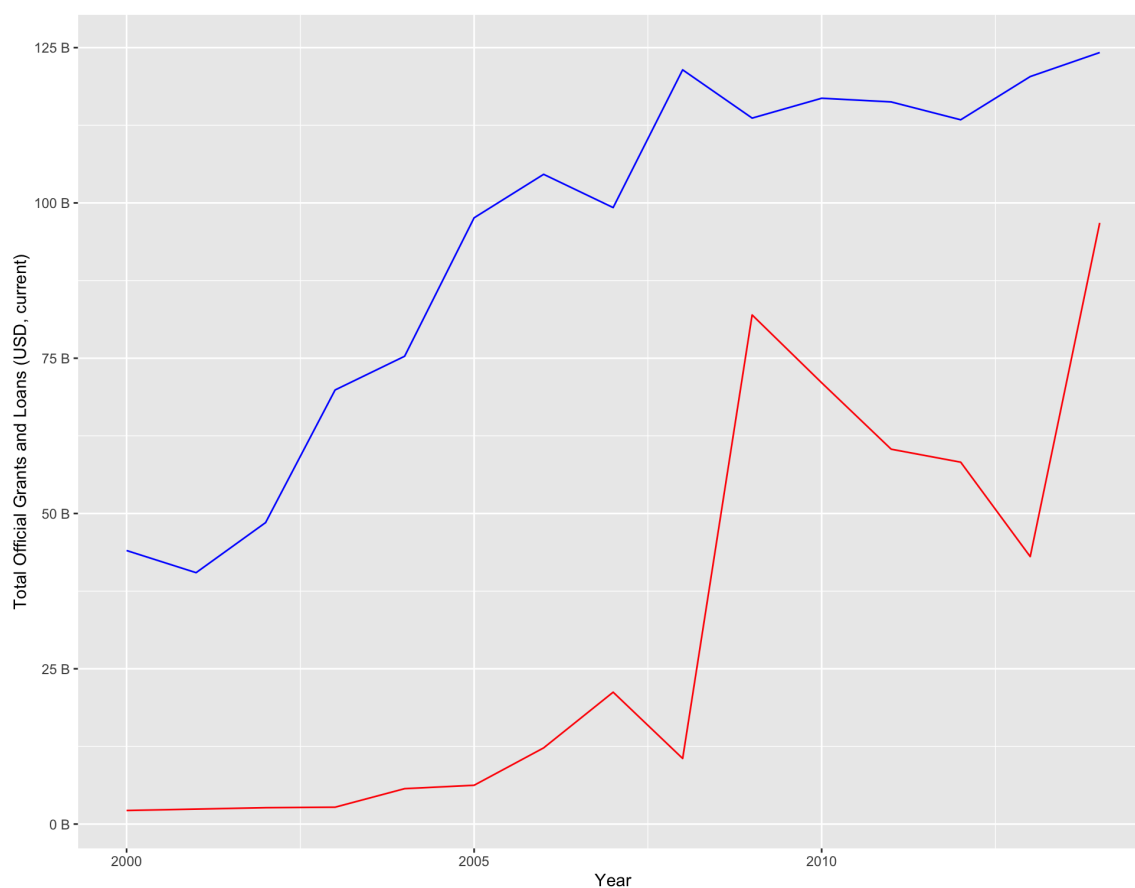
times, China can be very tough in its developing-world dealings, demanding that countries channel a majority of loan packages to Chinese firms or even put up precious natural resource deposits as collateral. China has a variety of tools in its financial toolkit, some of which are more likely than others to be appreciated in recipient countries.

This leads us to a much broader research question: why is development finance sometimes done on stricter terms, and sometimes on laxer? This question has been more thoroughly answered for more established, mostly developed-world or multilateral donors with longer track records in development finance. Academic research, though, has only taken limited steps toward comprehensively analyzing the various tools of Chinese development finance and has done little to integrate them into existing theory. Indeed, the task is difficult. The Chinese system is geared toward opacity, including but not limited to non-disclosure of reliable data. Still, it is worth doing. This is both because China's sheer heft in global development finance can no longer be ignored and because its practices diverge substantially from those espoused by more established developed-world organizations. Figure 1.1 shows total outflows of official grants and loans from China as compared to members of the Organisation for Economic Co-Operation and Development's (OECD) Development Assistance Committee (DAC), a thirty-country grouping of major developed economies¹ which establish shared practices for development finance.

China has not surpassed the DAC's outflows, but it competes in its own right, despite being one large country being compared to thirty (mostly) smaller ones. Academic theories, though, are largely based on the developed-world organizations which have been major actors for longer. One early attempt at comprehensively analyzing Chinese overseas development finance has come from (Dreher, Fuchs, Parks, et al., 2018), who use interest rate

¹Including both many smaller countries and major ones like the United States, Japan, Germany, etc.

Figure 1.1: Official Grants and Loans from OECD Development Assistance Committee and China, 2000-2014



OECD in Blue; China in Red

OECD data from Organisation for Economic Co-operation and Development (2018). Chinese data from Dreher, Fuchs, Parks, et al. (2018), excluding canceled projects or unconfirmed projects listed under the “Pipeline: Pledge” category.

and payback period data (where available) to sort Chinese grants and loans into the categories of “Overseas Development Assistance” (ODA) or “Other Official Flows” (OOF), categories established by the OECD which loosely correlate to ideas of what is favorable enough to the recipient to count as “aid” (ODA). While this is a welcome means to compare Chinese and other development finance, it has several serious limitations. First, the division of projects into ODA and OOF—roughly, “aid” and “non-aid”—is based on a mathematical formula agreed to by a committee of which China is not a member. Per the DAC formula, a project found to be roughly 24 percent grant-based relative to market rates is not ODA (aid), but a 26 percent discount is. This line could have just as easily been drawn at a higher or lower number, and while many Western aid agencies are structured to treat it as a more real distinction, China’s are not.

This leads to a second area where further research is necessary: China’s own internal bureaucratic fault lines. Grants and zero-interest loans—certainly the most concessional tools in China’s toolkit—are run through the Ministry of Commerce in concert with the Ministry of Foreign Affairs and Ministry of Finance. Interest-bearing loans, on the other hand, are most often handled through one of two designated “policy banks,” state-owned organizations with mandates to lend to projects that may not make money immediately and that might be overlooked by more traditional banks. These loan arrangements are also often products of input from Chinese firms, many of which are state-owned and enjoy positions of strength in the Chinese economic establishment. A loan from the Export-Import Bank of China, one of the two policy banks, might be concessional enough to meet the DAC definition of aid, but from a Chinese perspective, it is qualitatively different from the government ministries’ grants and zero-interest loans and is more likely to go to larger, more complex projects with higher risk profiles and (sometimes) greater salience to China’s foreign policy

goals.

Then, another gap in the literature exists outside the familiar area of grants and loans. The (Dreher, Fuchs, Parks, et al., 2018) study and dataset focuses on grants and loans, but in China's more statist political economy, a number of other arrangements are possible. Over 30 percent of Chinese loans are collateralized with natural resources due to a state-owned commodity firm. This practice is sometimes used by Japan and Korea but seldom by Western governments and is typically overlooked in the academic development finance literature. The Chinese government can also sponsor equity investments by state-owned firms—a possibility in some developed countries, but a much smaller part of the picture. Some Chinese firms may win contracts to build projects on their own, at times with indirect help from routine subsidized state credit. This is not outwardly even an extension of development finance from China to the recipient, but Beijing's subsidization of construction firms (and the firms' low cost to begin with) may imply an unrecorded but very real subsidy to the buyer. As will be discussed in greater detail in Chapter 2, these less conventional tools of Chinese development finance have been treated in some studies independently from one another but not typically in a comprehensive, unified way. Exceptional cases such as Bräutigam (2011) and Cheng Cheng [程诚] (2018) tend to be more descriptive and less theoretically oriented. A quantitative-leaning, theoretically oriented literature drawing on the West's experience and a qualitatively focused literature on China remain mostly separate.

In this dissertation, I address this gap by sorting China's tools of development finance by stringency and predicting which of China's national interests will lead to more or less stringent treatment. This allows us to expand existing theories of development finance to incor-

porate the Chinese case and perhaps those of other non-OECD countries.² The remainder of this chapter will briefly introduce 1) the independent variables (China's national interests); 2) the dependent variable, development finance stringency; and 3) the methodology to be used to determine the relationship between the two, as sorted by chapter.

1.1 Independent Variables: China's National Interests

A previous body of literature focused on the International Monetary Fund (IMF) and World Bank (the "Bretton Woods institutions") finds a tradeoff between donor national interests and financial stringency. All else equal, the Fund and Bank often use "policy conditions," or requirements that borrower countries deploy certain economic policies in exchange for credit. These typically conform to liberal ideals prevalent at the Fund in particular but also tend to maximize the odds that creditors are repaid. For example, limiting government budget deficits lowers the probability of default, and requiring an open capital account means that creditors will not find their money frozen in place during a potential crisis. These conditions are generally unpopular in borrower countries, which would all else equal rather have more latitude to make their own decisions. For countries important to the interests of major donors to the organizations, though, fewer conditions are often imposed (Kilby, 2009; R. W. Stone, 2008).

Existing studies typically use measures such as voting alignment at the United Nations General Assembly (UNGA) to measure foreign policy significance. This is reasonable in

²Scholars such as Stuenkel (2015) and Sierra (2017) place China in the context of the BRICS (Brazil, Russia, India, China, and South Africa) or other non-OECD countries such as Turkey or the Persian Gulf states. Many of these cases do bear some parallels with China in their emphasis on less concessional loan terms and corresponding de-emphasis on traditional aid. Still, I focus on the Chinese case both because it is uniquely able to act as a peer competitor to Western organizations and because its statist domestic political economy is fairly distinctive and merits analysis in its own right. The latter point is covered in Chapter 2.

that is readily comparable across many donor countries, but in this dissertation I find it to be a generally weaker indicator than donor-specific variables. A median UNGA vote may not matter all that much to most of the countries voting, but most have issues that they find particularly significant. Alesina and Dollar (2000), for example, find that American aid is uniquely drawn to Egypt and Israel. France maintains strong relationships with many former colonies. This section elaborates what China's particular interests are.

Diplomatic interests are fundamental to development finance. Bartering economic assistance for diplomatic support is a well-established game. In China's case, there is a clear hierarchy of diplomatic interests. At the top of the hierarchy are issues of territorial integrity, notably the Taiwan and South China Sea disputes. The People's Republic of China (PRC) sees Taiwan as a rebelling province and has since the 1960s successfully convinced most of the world's countries to maintain embassies in Beijing and not Taipei. The Taiwan issue is only salient to countries which continue to recognize Taiwan or might be tempted to switch for the right price, but in these specific cases, it is Beijing's overwhelming priority. Following Taiwan, the South China Sea is a second priority. Beijing claims many islands and features in the South China Sea as its own territory, and its claims overlap with those of many of its Southeast Asian neighbors. Development finance could be used to persuade rival claimants to less actively pursue their claims; non-claimants in Southeast Asia to support China's position at the Association of Southeast Asian Nations (ASEAN), the regional body that acts as the primary forum for the dispute; and typically less interested countries outside the region to support China, which has become a more difficult task particularly since an international tribunal ruled in the Philippines' favor.

A series of other issues which do not relate to China's territorial integrity take on secondary significance. Tibet has always been a topic of conversation in multinational fora but of late

has been eclipsed by Xinjiang, where China is engaged in a campaign of repression, interning hundreds of thousands of Uyghurs and other ethnic minorities. This is less sensitive for Beijing because, unlike Taiwan and the South China Sea, PRC sovereignty over Xinjiang is not actively contested. The same goes for Hong Kong, where protests have garnered international sympathy but cannot actually threaten Beijing's control over the city. Then, toward the bottom of the hierarchy of diplomatic interests is a general orientation toward non-interference in others' affairs. This is popular in many developing countries which have their own internal disputes paralleling China's. These issues are found to play a weak supporting role after the more central Taiwan and South China Sea disputes.

Shows of diplomatic support are not the only reason that China might want to maintain good standing in developing country capitals. China has a series of **geostrategic interests** in especially Eurasian countries whose domestic politics have direct implications for China's domestic stability. Some countries along China's periphery are home to insurgent, extremist, or criminal groups which could spill over into China. Extremist groups in areas bordering Xinjiang are of particular concern; as will be discussed in Chapter 7, these have indeed established limited ties with anti-Beijing groups within Xinjiang. Then, instability could also threaten safe passage of goods across Eurasian countries to and from China. The Belt and Road Initiative began as a series of Eurasia-focused connectivity projects which simultaneously provide trading outlets for China's less developed western provinces and an overland emergency escape route in case maritime traffic is compromised by events at the Strait of Malacca or elsewhere. The ability to import commodities and export manufactured goods is central to regime stability, and development finance could plausibly both stabilize transit countries and make their governments more willing to grant access to China in a crisis.

Then, of course, there are the more obvious **commercial interests** behind development finance. Securing Eurasian throughways is helpful for trade, but does nothing for access to raw foreign materials at the point of production or to export markets at the point of sale. The twin priorities of commodity imports and manufactured exports bear less explanation but are nonetheless significant to the world's factory floor.

Finally, China must balance all of these priorities against local political risk. Some states have inconsistent rule of law and a track record of renegeing on agreements, encroaching on foreign investments, or failing to repay debts. Avoiding risk is not a "national interest" in the sense that it can motivate a project by itself, but once the decision to commit financing has been made, it can play a significant role in structuring projects, especially in higher-risk countries.

1.2 The Dependent Variable: Development Finance Stringency

China does not use economic policy conditions like the Bretton Woods institutions, but it does use a series of other tools, some of which (to varying degrees) also manage political risk by placing impositions on recipients. These are not always handled by the same parts of the Chinese establishment. In the following list, I note not only what the tools are, but who issues them and toward what types of projects.

Government agencies led by the Ministry of Commerce issue **grants** and **zero-interest loans** as the most recipient-friendly tools in China's toolkits. Grants are obviously the least stringent but are also the most limited in what they can accomplish: they are usually reserved for very small projects, especially those in "social sectors" like health and edu-

cation. Zero-interest loans may be slightly larger and are still a net transfer of wealth to the borrower: after accounting for inflation, most borrowers pay back less than they originally received. Zero-interest loans are the second-friendliest of China's financing mechanisms.

Grants and zero-interest loans would not be financially sustainable for larger projects such as those in infrastructure or resource extraction, both major Chinese strengths. These require a different set of tools. **Equity investment** is relatively favorable to the recipient. While legal ownership could be considered an imposition, it also means that the investor holds related debt and project downside risk, which in most developing countries have historically been larger issues. Indeed, many countries compete to attract foreign investment. More stringent than equity are **interest-bearing loans**. The lion's share of these are handled by two state-owned "policy banks" which operate on terms different from traditional banks. Namely, their interest rates are generally lower than the market rate, but with the negative to borrowers of non-competitive procurement. Both of these banks "tie" loans to the use of Chinese contractors, meaning recipients lose some decision-making power and might be forced to accept high pricing and/or lower quality. The toughest of China's tools is **resource-backed loans**, a special type of tied loan which is repaid in or collateralized with commodities. Many developing countries rely heavily on commodity exports for their state budgets and general livelihoods, and placing a mortgage on them is a particularly strict measure. Not to be left out, there is the non-interventionist option of **freelance contracting**, meaning that Chinese firms win project bids on their own without any project-specific state support. This could be considered a control case to be compared with projects that *are* directly state-funded. It in some instances also represents a flow of wealth from China to the recipient in that many Chinese firms are subsidized through cheap credit to their

customers' benefit.

A secondary set of tools is used only for distressed deals. If borrowers cannot repay loans, China can respond in a series of more or less stringent ways. The least stringent is a simple **write-off**: this is essentially the same as a grant. Next in the hierarchy is **restructuring**, either through delaying the payback period, breaking the loan into smaller payments, or both. How favorable a restructuring package is to the borrower will vary from case to case. In some cases, restructuring may also involve a degree of outright forgiveness, although it is useful to think in ideal types for theoretical purposes. Then, *debt-equity swaps* are stricter than restructuring. In this arrangement, China forecloses on the concerned asset, writing off debt in exchange for legal title. This is better for the borrower than demanding repayment in full but may leave a bad taste with some. The toughest option is to *hold out for repayment*, declining to renegotiate at all despite knowing that the borrower cannot repay. This leaves the borrower in a state of acute short-term crisis and is likely to engender negative reactions in the recipient country capital.

1.3 Methodology and Chapter Outline

Some national interests mandate less stringent forms of finance, while others mandate more. In Chapter 3, I predict that stringency has a negative relationship with geostrategic and diplomatic interests. Convincing a partner country to vote alongside China or allow strategic access requires a softer touch, and demanding financial return would be counterproductive. The opposite is true for commercial interests and risk management: tough terms such as tied procurement and resource collateralization can secure access to natural resources, lock down revenues for Chinese firms, and protect firms against the vagaries of

local politics.

The rest of this work tests these predictions in much greater detail using a mixed-methods framework. Drawing on Lieberman's (2005) "nested analysis," I use quantitative methods to establish broad correlative patterns in the data and case studies to observe causal mechanisms and ensure that quantitative findings are not spurious.³ Most of the chapters begin with statistical models of relevant types of financing and then include two case studies. The case studies are paired to be similar to one another across most dimensions except one of interest—e.g., rich in natural resources and geostrategically less significant, but with different degrees of political risk. I here outline each chapter's role in the dissertation.

Chapter 2 begins with the big picture, conveying what we know about development finance in general and the Chinese case in particular. It begins with a series of tradeoffs faced by all development financiers. The earliest academic debates on development finance often focused on the balance between sending money where it most needed versus where it is most pertinent for donor national interests. Over time, this morphed into where funds are most useful for national interests versus where they will be best put to use, meaning recipients with strong domestic institutions. Since the 1990s, the focus has turned away from the aggregate volume of development finance and towards the terms: the aforementioned debate over policy conditionality then entered the picture. This latest iteration of the debate over global development finance presents a rough draft of a theory of development finance stringency to be modified to fit the Chinese case. Then, before looking at China, I also introduce the state of research on equity investments by private multinational firms. While not actually state development finance, these present a useful comparison point for Chinese state-backed equity investments which face similar challenges with respect to re-

³Lieberman (2005). See also Brady and Collier (2004).

recipient country political risk but must also take greater care to accommodate their home governments' interests as well.

The second half of Chapter 2 turns to what is known about China. Just as World Bank and IMF conditionality grew out of the West's liberal thought and practice, China's international development finance system is in many ways an outgrowth of its domestic experience. I begin with the aforementioned independent variables, China's national interests, and then proceed to several ways in which China's system differs with implications for international development finance. First, China is a latecomer to international development. As such, it is often left with the toughest environments, but is not bound by existing agreements on financing practices, meaning it has a free hand to pursue tough risk management measures such as tied lending which are barred by the OECD. Second, it has a much more statist political economy characterized by the use of debt as a form of resource allocation to important but loss-making projects at its best, or patronage at its worst. These same patterns of loss-making debt and state use of capital are replicated overseas. Third, China does not strictly adhere to the rule of law. While this has obvious negatives for businesses, one positive is that Chinese organizations are able to quickly respond to changing circumstances in high-risk environments without being entirely bound by previous agreements. This greater degree of flexibility gives China an advantage in the world's most difficult business climates.

Chapter 3 builds on the background introduced in Chapter 2 to introduce this dissertation's dependent variable theory. As explained above, the dependent variable is a continuum of development finance options arranged by stringency; these are enumerated in much greater detail in Chapter 3. Chapter 3 also formally spells out the hypotheses to be tested in the rest of this work.

Chapter 4 begins the substantive analysis with the simplest cases: grants and zero-interest loans. These “aid”-like projects are run through government ministries proper and have more similarity with Western aid in their focus on social sectors like health and education. I begin with quantitative analysis, finding that they are more useful for general diplomacy, with the caveat that zero-interest loans can substitute for grants and serve as a signal of Chinese displeasure short of actually withholding aid. This is an iteration of the theory of development finance stringency as played out within the confines of the Ministry of Commerce. I then apply this analysis to the specific cases of Burundi and Rwanda. These are both less complex cases from China’s perspective in that they have few natural resources and little geostrategic importance, meaning that only diplomatic objectives and commercial goals are really part of the picture. But, they differ in terms of governance risk. I find that while China’s strategy in the two countries is not actually all that different, Burundi has been much more inclined to support China in international fora for the simple reason that its internal governance record has led many international donors to keep their distance, leaving China in a greater position of relative strength.

Chapter 5 adds a layer of complexity by shifting from small aid projects to larger items involving Chinese firms and (sometimes) banks. Firms can bid on contracts without explicit state support; win contracts with support from state-owned banks; or make equity investments. Chapter 5 assesses which of these are best for China’s various foreign policy goals and why. In general, debt is better able to secure commercial interests and protect Chinese firms against political risk. However, it does so by transferring downside risk to borrower governments and is thus typically less appreciated in recipient capitals than the other more hands-off options. I test this first through cross-national quantitative analysis and then by continued comparison of Burundi and Rwanda, where the lack of complicating

geostrategic or resource interests continues to be of use. In more stable Rwanda, Chinese firms often engage in freelance contracting activity which is only possible in Burundi in isolated pockets supported by concerned international organizations like the World Bank and African Development Bank. Chinese equity investors also enter Rwanda frequently, but not Burundi. Furthermore, Rwanda is home to subnational variation between higher-risk deals involving firms connected to the military or ruling party and lower-risk deals elsewhere; Chinese organizations' responses to these varying circumstances present a microcosm of Chinese strategy in countries with different levels of political risk.

Chapter 6, though, does take resource security into account. It also introduces resource-backed loans as the toughest tool in China's toolkit. This is done both through quantitative analysis and through side-by-side comparison of Ecuador and Peru. Quantitative analysis shows that tied loans are targeted at countries with higher political risk *and* commodity significance to China; resource-backed loans, even more so. The case studies confirm this. In the era in which China has had appreciable international financial heft, Ecuador has continually presented higher political risk than Peru, and the administration of Rafael Correa posed particular challenges to foreign investors. This left a void for a more risk-tolerant actor to fill, and China entered with resource-backed loans. This illustrates two different causal mechanisms connecting development finance stringency to political risk: China used tougher terms both because it was necessary to push firms into Ecuador's oil market, a priority for state interests, and because Ecuador's lack of alternatives left them with little choice but to accept demanding deals. Peru since the 1990s has been more stable, and apart from some pockets of political risk surrounding deals connected to elected officials typically operates more according to the rule of law. Here, Chinese firms have entered Peru's lucrative copper market as equity investors, acting in much the same way as

their private multinational peers. With a relatively favorable market reputation, Peru felt no need to mortgage the centerpiece of its economy, and investors felt no need to make such a demand. Geostrategic interests also make a limited appearance in Chapter 6 with two proposed overland corridors bypassing the Panama Canal, although neither has happened as planned.

Geostrategic interests are instead the focus of **Chapter 7**. Following the results of Chapter 6, I find that geostrategic interests also interact with political risk. China faces incentives to be as friendly as possible to geostrategically important countries so as to maintain strategic access, but in the presence of high political risk might have to use debt or tougher tools to build major throughways. This shows up as a negative interactive term in the quantitative results but can be seen in greater detail in case studies of Kazakhstan and Pakistan, where overland routes to Europe and the Indian Ocean, respectively, have drawn major Chinese loan packages. However, recipient national priorities like Pakistan's electricity sector have instead received fairly favorable treatment. This certainly serves bilateral relations and perhaps offsets the fiscal impact of debt for strategic throughways. Kazakhstan and Pakistan both border China and are home to major navigational projects but differ in that Kazakhstan is also home to major oil deposits. So, we can observe geostrategic interests in isolation or in competition with resource interests.

While Chapters 4-7 effectively cover China's market entry options, **Chapter 8** turns to what happens if borrowers cannot repay. China's secondary tree of options parallels the initial entry decision in that it ranges from very strict (not renegotiating at all) to very lax (writing off debt). Because the universe of cases of renegotiated debt is relatively small, I do not do statistical analysis for this chapter, instead grouping known cases by independent variables involved—geostrategic, resource, or none of the above. I find that China

is extremely tough when renegotiating resource-backed loans, slightly more forgiving for geostrategically important countries, and at its most forgiving in countries where neither of the above are important and diplomatic interests come to the forefront.

Chapter 9 concludes by summarizing the findings and proposing areas for future research.

Chapter 2

Background and Literature Review

China's development finance activities are quite diversified. The Ministry of Commerce handles grants, zero-interest loans, and low-interest loans; policy banks such as the Export-Import Bank of China and the China Development Bank issue less concessional loans; state-owned firms make equity investments and bid on overseas construction contracts; and so on. Some of these financial flows are more demanding of borrowers than others. To understand how the various components of Chinese development finance serve different purposes, we first turn to theories of development finance allocation and stringency which have been generated based on empirical activity by more established financiers. This chapter will outline what we know about the determinants of quantitative and qualitative variations in development finance based on previous studies of these better-established actors. These include developed country governments; the International Monetary Fund (IMF) and the World Bank, henceforth the "Bretton Woods" institutions after the New Hampshire resort at which they were created; and private multinational firms, which are not typically considered part of the global "aid" regime but provide a useful counterpoint

to Chinese state-owned firms which frequently participate in state-sponsored development initiatives.

I introduce this literature in six stages. First is an introduction to the Organisation for Economic Co-operation and Development's (OECD) concepts of "official development assistance" (ODA), or government-sponsored grants and concessional loans, and "other official flows" (OOF), which are government-sponsored credits deemed too demanding of recipients to count as ODA. These concepts are the OECD's standard measure of stringency of financing terms and are important both to understand OECD member state activities as well as to contrast with China's conception of development finance in Chapter 3. Second is a literature on the determinants of ODA flows from major developed donors with a particular focus on the tradeoff between donor national interests and recipient need. This body of work sometimes touches on stringency of terms, particularly when comparing ODA to OOF, but is more significant in that it establishes the role of donor national interests in development finance. Third, I continue to later studies development finance flows not so much as a tradeoff between donor national interests and recipient need *per se*, but instead as a tradeoff between donor national interests and targeting recipients with strong domestic institutions, which are an important factor in determining whether aid can successfully promote local development. Dealing with risk from weak local institutions is a factor in Chinese strategy as well. Fourth, I apply this tradeoff between promoting national interests and avoiding governance risk to the Bretton Woods institutions. The IMF and World Bank often attach policy conditions—requirements to maintain balanced budgets, open capital accounts, and the like—to their loans. These conditions promote the Fund's and Banks' preferred types of governance, lower the risk of recipient default, and (quietly) exclude borrowers who would rather lose access to Bretton Woods credit than meet the conditions.

They constitute not just a quantitative difference in the amount of lending, but also a qualitative difference in the stringency of lending. Studies of conditionality have found that countries of significant importance to major Bretton Woods shareholders (especially the United States) tend to receive less stringent loan packages. This tradeoff between propping up friendly governments with concessional deals and enforcing loan repayment with tough ones is paralleled by China's ability to choose between a series of lax or strict development finance instruments; these will be detailed in Chapter 3. Fifth, I examine how private multinational investors respond to governance risk. These firms face the same difficulties as other actors doing business in high risk markets and provide a contrast to Chinese state-owned firms which share private firms' imperative to manage risk but also answer to a state which sometimes pushes them to sacrifice their own financial interests for the greater national good. Sixth, I add concluding thoughts.

2.1 The Established Actors: The OECD, the Bretton Woods Institutions, and Private Multinational Corporations

2.1.1 "Aid" and "Business"

This dissertation's outcome of interest, stringency of development finance arrangements, has deep roots in both the developed world's aid regime and the academic literature that studies it. Most developed world actors classify financial flows as either "aid," a less stringent mechanism with limited expectation of repayment, or "business," which implies a greater degree of profit. This heuristic is a means of simplifying the wide array of financial flows that can promote a country's development. This distinction, however, is not nearly as clear in practice as in our imaginations. Take a comparison between a grant and a loan. A

grant, a unilateral transfer of wealth, comports well with popular conceptions of “aid” as a one-way flow from haves to have-nots. A loan to be repaid with interest does not. However, what of in-between cases? What if half of a loan is to be repaid, and half is a gift? What if eighty percent of the loan is to be repaid? What if all of the loan is to be repaid, but at a lower interest rate and over a longer payback period than commercial banks would offer? Is this favorable enough treatment to count as “aid”?

The Organisation for Economic Co-operation and Development (OECD), a Paris-based multilateral group composed of most of the world’s high-income countries,¹ has attempted to address this issue by formally codifying the distinction between “aid” and “business”. The OECD’s Development Assistance Committee (DAC) defines “overseas development assistance” (ODA) as any official flow with a grant element of more than 25 percent and “other official flows” (OOF) as official flows with grant elements less than this number. In other words, if a loan represents a twenty-five percent discount relative to what a commercial bank would offer, then it is concessional enough to count as ODA; if not, it might be OOF. Apart from “grant element,” the other operative word is “official,” implying government involvement.² Private banks and investors count toward neither ODA nor OOF, although government guarantees for or loans to private entities might. OECD members report their development finance activities to a central database using these categories.

Drawing on the work of Baldwin (1985), this dissertation treats ODA, OOF, and other tools of various stripes as part of a menu of options available to governments. Baldwin writes that in any given instance, policymakers can choose from one of several options as part of a “policy contingency framework,” or range of conceivable policies which could respond to

¹ Almost all of the OECD’s members are classified by the World Bank as high-income countries, with the exceptions of middle-income Mexico and Turkey.

² This is computed according to a standardized mathematical formula. For more detail on the formula itself and its history, see Scott (2017).

a given situation. Baldwin's focus is on "economic statecraft," to use his term—the use of economic means to promote state ends. Economic statecraft could contain any number of different financial tools, of which in any given situation some will be more useful than others. Take, for example, a simple thought experiment comparing grants and loans. Grants, or giveaways of cash and/or goods, are the simplest type of financial flow. Loans may be subject to a debate over the terms of repayment; grants involve no such annoyances. However, this is not to say that grants are not repaid in any form. Baldwin makes the case that all grants have some kind of ulterior motive (293, 299).³ For example, grants can be used as encouragement to adopt friendly diplomatic positions, safeguard investments by donor country firms, or stabilize a country whose security situation poses risks to the donor. More specifically, the power of these grants is not so much in their issuance as in the specter of their future cutoff (306). Once a grant is disbursed, there is a time inconsistency problem: the recipient country already has the money, and there is no real way of enforcing that it holds up its end of the bargain. The promise of future funding can alleviate this problem: perhaps this year's aid package is already water under the bridge, but next year's is contingent upon the recipient acting as hoped. This stands in contrast to loans or equity investment, which expect some degree of financial return. Of course, in practice, some loans or equity deals may have motives other than profit. A loan to a defense partner at a reduced interest rate, for example, involves a mix of profit and security motivations. We can imagine a continuum of transactions between grants and concessional loans aimed at differing mixes of profit and other national interests.

³Mauss (1925) sees gifts as part of a pattern of reciprocity underpinning much of society. Typically, Mauss says, the giver of a gift expects to receive something in return as part of an exercise in relationship-building.

2.1.2 Aid from the OECD

A longstanding literature uses OECD members' reported volumes of ODA as a proxy for transactions at the more concessional end of the spectrum. Many earlier works on foreign aid present donors as facing a tradeoff between serving selfish and altruistic ends. All else equal, the story goes, a more altruistic donor will give more money to poorer states. Targeting aid to those most in need may come at the expense, however, of donor interests such as safeguarding trade and commercial interests or supporting military allies or former colonies.

McKinlay and Little (1977) posit two mechanisms linking aid to geostrategic interests: commitment and dependency. In an argument reminiscent of Schelling (1966), they hold that aid can be used to signal commitment to a partner country. Talk is cheap, but money is not, and especially in the context of the Cold War it was useful for great powers to signal that they would stand by their partners in the event of a war or attempted *coup d'état*. Their second argument is more similar to Baldwin's as described above and is less specific to cases of high geopolitical tension. As they put it:

A dependency relationship exists when one party relies on another without the reliance being reciprocated. While one party can terminate the relationship with little or no cost, the other can do so only at significant cost. The reliant party, therefore, operates in a subordinate or dependent position. A dominant state establishes dependency relationships because they generate a degree of control or influence. The main utility of the dependency is the potential for control. This control can be used for a variety of ends dictated by the dominant state. (62)

Aid's power is less in its giving than in the threat of its withholding. This threat can be used as leverage for any number of ends. McKinlay and Little find that the United States used aid to compete with the Soviet Union for the loyalty of non-aligned countries, and that larger

outflows were targeted at countries with larger populations and militaries. They find only a weak correlation between American aid and poverty or need. Maizels and Nissanke (1984) follow up with the finding that bilateral aid is highly correlated with both arms transfers and private investment stocks. In the post-Cold War era, Alesina and Dollar (2000) find that aid is positively correlated with geopolitical alignment as approximated by voting alignment at the United Nations General Assembly (UNGA). Berthélemy (2006) makes a similar case for commercial interests, finding that aid is frequently correlated with trade between the donor and recipient. He further finds that this relationship is stronger for some donors such as France and the United States, but weaker for others such as the Scandinavian countries. This would appear to suggest that larger donors with more global interests will use aid to defend them, while smaller donors tend to be more altruistic, although there are some imperfections in this correlation (such as Italy scoring among the most selfish countries). Fleck and Kilby (2010) revert to a focus on security interests, finding that in the 2000s, the War on Terror replaced the Cold War as a major motivator of American aid.

Others have framed donors' choices as not between self-interest and altruism *per se* but between self-interest and fostering strong recipient institutions. Burnside and Dollar (2000, 2004) find that aid is more likely to lead to economic growth in countries with institutions such as strong rule of law and private property rights as well as policies such as balanced budgets and openness to trade. In countries with favorable institutions, aid inflows should have a multiplier effect on growth by enabling recipients to invest more in productive projects than they would have otherwise, but in a poor institutional environment, they are just as likely to be squandered. Alesina and Weder (2002) assess how much donors weigh the strength of local institutions vis-à-vis their own interests. They find no correlation between recipient country corruption and aid receipts. However, they find that

the relationship varies by donor country. The Scandinavian countries tend to target less corrupt countries, while the United States actually sends more aid to more corrupt countries. Alesina and Weder do not argue that the American government necessarily wants to enable corrupt leaders so much as that many important geostrategic partners of the United States happen to be corrupt, and that the American leadership shrugs and tolerates this fact. Countries like the United States with global geopolitical interests face a devil's tradeoff between ignoring corrupt friends and losing their allegiance or continuing to enable them knowing that the money will be squandered.⁴

Dollar and Levin (2006) use the end of the Cold War as a natural discontinuity in recipient strategic importance over time. They find that during the Cold War, donors targeted countries with weaker rule of law, presumably to curry favor with leaders whose allegiances were up for grabs. However, this pattern flipped after the fall of the Berlin Wall, with multilateral donors preferring countries with stronger rule of law, and bilateral donors exhibiting no preference. Bermeo (2016) continues by analyzing the effects of aid on institutions. She finds that aid flows inhibited democracy during the Cold War, but not after it. In the absence of pressure from Soviet competition, Western donors began to pay attention to how their money was being spent. This turn toward focusing on governance was embodied in a 1996 speech by then-World Bank President James Wolfensohn, who spoke of a “cancer of corruption” eating many poor countries from the inside (Wolfensohn, 1996).

⁴This is similar to the finding of Berthélemy (2006) that many larger donors tend to score as more selfish in terms of trade interests.

2.1.3 The Bretton Woods Organizations

Indeed, the World Bank became front and center in a new crusade for good governance.⁵ After the end of the Cold War, both the World Bank and the IMF began to make much more use of policy conditions in their lending. Like bilateral donors, they also face a trade-off between supporting donor interests and supporting recipients with good institutions. However, unlike previous studies looking mostly at the absolute volume of financing, these studies look at qualitative differences as well. Namely, financing packages to diplomatic friends of major Bretton Woods shareholders on average include fewer policy conditions, which otherwise would have been meant to promote the Bretton Woods organizations' preferred type of domestic institutions. This section begins with caveats about how multilateral organizations are imperfectly comparable to bilateral development agencies, continues with an explanation of policy conditionality and how it is viewed by borrowers and lenders, and concludes with a review of the literature connecting conditionality to the national interests of multilateral organizations' major shareholders.

The IMF and World Bank are the centerpieces of the debate over conditionality, and they differ from the national aid programs described in previous sections of this chapter in important ways. First, they concentrate on loans over grants. The IMF's stated mission is providing emergency liquidity for countries in financial crises. This involves lending them money until they have weathered the storm, but not issuing grants such that there is little incentive to avoid future crises. The World Bank is responsible for promoting development in lower- and middle-income countries, but as the name implies, it is a bank, focusing on loans over grants. Given its core mission, the Bank is a more natural comparison case for national aid programs than the Fund. However, we will here discuss it alongside the IMF

⁵Much more detailed accounts of the Bank's evolution can be found in Kapur, Lewis, and Webb (1997) and Stiglitz (2002).

because the literature on the two institutions is intertwined and based on similar logics. Previous sections of this chapter established that loans are less useful than grants for promoting unrelated goals because they offer less of a carrot to the recipient, but this is not to say that they can serve no such purpose at all. In the era of policy conditionality, the stringency of conditions attached affects how concessional or “aid”-like a loan package can be considered.

This leads us to the second important difference between the Bretton Woods institutions and bilateral aid agencies: the Bretton Woods institutions are multilateral organizations and do not have clear “national interests” *per se*. One might expect multilateral organizations to avoid geopolitics in their decision-making; for example, Maizels and Nissanke (1984) show that arms transfers are associated with bilateral aid, but not multilateral. However, subsequent studies have demonstrated that the geopolitical interests of major donors do sometimes influence multilateral organizations’ decisions. The IMF and World Bank are governed based on a quota system resembling a corporate shareholding system. Member state voting power is based on an allocation of “quotas”—essentially, shares. This allocation is nominally based on the size of member states’ economies, but in reality has historically favored established industrialized powers over faster-growing developing markets. The United States has *de facto* veto power over major decisions, and when voting as a unified bloc, European states do as well. The World Bank President is also by tradition always an American; the Chair of the IMF, a European. Barro and J.-W. Lee (2005) find that United Nations voting alignment and trade ties with major IMF shareholders are associated with receiving credit from the Fund. Fleck and Kilby (2006) make a similar observation for trade ties at the World Bank, while Andersen, Hansen, and Markussen (2006) find a correlation between United Nations voting alignment with the United States and alloca-

tions from the International Development Agency (IDA), the concessional lending wing of the World Bank. Winters (2010) finds that shareholder interests matter more at IDA, which handles concessional lending and requires periodic replenishment by donors, than at the International Bank for Reconstruction and Development (IBRD), which lends at higher interest rates and is mostly financially self-sustaining.⁶

Shareholder national interests affect not only the quantity of loans issued, but also the quality thereof. Policy conditions such as limiting fiscal deficits, maintaining an open capital account, and privatization of state-owned industries have become more common since the end of the Cold War. These policies are rooted both in a desire to minimize the risk of default and in liberal ideas dominant at the Fund and Bank. Maintaining conservative fiscal policy in borrower countries means that they are less likely to accumulate unsustainable debts and default on loans, including both those owed to the Bretton Woods institutions and to private investors, many of whom are based in the Fund's and Bank's major shareholder countries. In addition, the Bank and Fund work closely with borrower Ministries of Finance and keep tabs on government bookkeeping both to monitor compliance with conditions and to safeguard against misappropriation. Maintaining open capital accounts means that private investors are able to move money out of the country if they so choose. Privatization of inefficient state-owned firms can take pressure off of the national budget and make it easier to repay loans. Lower taxes, strong property rights, and minimal corruption will reduce the erosion of investor wealth over time regardless of macroeconomic

⁶This debate has come into focus recently, especially at the IMF, where up into the 2010s China had less voting power than Belgium. Any changes in quota allocation must be approved by a vote of members, meaning that the United States Senate was able to stall an increase in China's voting power for some time. Many American policymakers believe that this was a major motivator behind China's decision to create its own multilateral financial organization in the Asian Infrastructure Investment Bank (AIIB), in which China has a 50 percent voting stake. Interviews with retired senior American diplomat and retired senior American World Bank official, Washington, DC, July 2018.

conditions (Stiglitz, 2002; Woods, 2006).

Any lenders worth their salt will worry about avoiding default, but not all of them place conditions on local macroeconomic policy. China does not, instead opting for a different set of risk management tools to be discussed in Chapter 3. Policy conditionality has roots both in organizational politics and ideational factors which we should keep in mind when comparing the Bretton Woods institutions to Chinese lenders. The Bretton Woods institutions and especially the IMF encourage internal conformity to liberal doctrine. Kapur (n.d.) writes that World Bank research draws heavily on academic theories developed at institutions in the global North without making room for much in the way of local innovation; these Northern institutions tend toward neoclassical economics. The IMF tends to be stricter, for a variety of reasons. Woods (2006) argues that career incentives within the Fund force staffers to advocate liberal policies in order to have a chance at career advancement. The Fund's own Independent Evaluation Office (IEO) polled staffers and found that most felt pressured to adhere to a certain ideology and that there was not enough room for local developing country input (International Monetary Fund, 2011). Chwieroth (2009, 2013, 2015) adds that IMF staffers are largely selected from high-ranking North American and British economics departments in which liberal ideas are taken as orthodoxy, and that once at the Fund, these staffers will sometimes informally consult with local governments officials with similar views to avoid the greater heterogeneity of thought in the formal negotiation process.

Developing world borrowers are often much less sanguine about policy conditionality. Critics such as Stiglitz (2002) see conditionality as inherently intrusive of borrowers' sovereignty. Chang (2003, 2006) argues that conditionality takes away "policy space" to implement the kind of state-led growth policies that are needed for developing countries to close the

gap with stronger competitors; Kapur and Naím (2005) conceptualize this type of strong-arming from above as inherently undemocratic.⁷ On a more strictly economic note, Barro and J.-W. Lee (2005) estimate that IMF loans actually depress economic growth in the five-year period following their issuance.⁸ Optimists would counter that this period of painful adjustment is necessary for better outcomes in the long run, but either way, conditionality is not particularly popular in most developing countries.

The degree of policy conditionality attached to Bretton Woods loans is not constant across all cases. Mosley (1987) conceptualizes the variation in policy conditionality as the result of a “bargaining process” between borrowers and lenders.⁹ This tug-of-war could go either way, but for the role of other parties. Namely, national government shareholders in the Bretton Woods institutions are in a position to tip the scales. There are reasons that they might lean toward either stronger or weaker conditions. On the one hand, we have established that donors will want to offer favorable deals to important partners. For example, a donor will not want to impose strict conditions on a military ally, both to maintain the security relationship and to inhibit even a short-term weakening of the partner’s economy. However, they also share an interest with the Bretton Woods institutions in maximizing the chances of loan repayment both via their financial stake in protecting the Bretton Woods institutions’ balance sheets and because the Bretton Woods institutions can prevent default on debt owed to private creditors based largely in the global North. Donor states must make a choice between using stricter conditionality to safeguard their economic interests or less stringent terms more amenable to maintaining geopolitical and security partnerships. This

⁷This is similar to the argument of Wade (2003) that the World Trade Organization (WTO) takes away “development space” from the Global South through rules regarding contentious areas such as intellectual property and foreign investment protection.

⁸See also Dreher (2006).

⁹Mosley, Harrigan, and Toye (1991) later explicitly apply this framework to the World Bank.

is a permutation of the familiar tradeoff between promoting national interests and promoting good governance. Countries with weaker institutional and property rights regimes are unlikely to comply with strict conditions and thus will be unlikely to receive Bretton Woods institutional credit, unless a powerful shareholder decides otherwise.

Empirical studies demonstrate this tradeoff in action. Dreher and Jensen (2007) find that countries which vote more often with the United States in the UN General Assembly receive fewer conditions as part of IMF packages; Dreher, Sturm, and Vreeland (2015) follow up with the finding that UN Security Council members also receive fewer conditions from the IMF. R. W. Stone (2008) finds that General Assembly voting alignment is actually a weaker predictor than receiving aid from the United States. Either way, American interests are making their way into loan terms. Kilby (2009) applies the same logic to the World Bank, finding that enforcement of World Bank conditionality is weaker for countries which vote more often with the United States at the UN General Assembly. In some cases, recipient countries may be important to more than one major power, meaning that they can play the different parties against one another to extract a better deal—to “use the barbarians to control the barbarians” (以夷制夷), as an old Chinese proverb goes. D. Hernandez (2017) finds that countries which receive more development finance from China in turn receive fewer conditions on World Bank loans. X. Li (2017) further finds that even when World Bank conditions are imposed, Chinese financing means that their usual democratizing effect disappears; Tseng and Krog (2017) add that this counter-democratizing effect is strongest in resource-rich countries.

This brings us to the present day in development finance. The debate over conditionality is a proxy for the older conflicting relationship between donor national interests and recipient country governance. However, it was never set in stone that policy conditions were to be

the only way to address this tradeoff. A group of financiers with a different history and ideational foundations might well use different tactics to tackle similar problems. We now turn to two such groups: international private investors and the Chinese state.

2.1.4 Private Multinational Firms

At first glance, it might not appear that private multinational investors fit very well into a story about development finance. They have no fixed “national” interests and are primarily concerned with profit above all else. However, they are worth including in this analysis for two reasons. First, they must face many of the same issues of poor local governance as providers of “official” development finance, to use the term of art for financing from governments or multilateral organizations. Second, firms in China are more directly connected to the state and its development finance apparatus, and most Chinese do not think of firms’ activities as inherently separate from more traditional governmental aid flows like grants. The activities of private multinational corporations, most of which are headquartered in more marketized economies, provide a useful comparison case to Chinese state-owned firms.

The observation that foreign investors care about governance is hardly new. In a classic work that has underpinned much of the literature since, Vernon (1971) posited that foreign investors face the problem of an “obsolescing bargain” with host governments. During negotiations for a new investment, the host government will typically promise treatment on par with that given to local firms, or perhaps even better. However, once investors are drawn into the host country, the host government could violate the terms of the previous agreement without immediate consequences. In the 1970s, the primary fear was direct expropriation of assets. However, host governments quickly learned that such dramatic

action would deter future investors, and the literature now focuses more on “indirect expropriation” of investor wealth through measures such as gradual increases in regulation and taxes, enforced technology transfers, or even informal demands for bribes and contrived “fees.”¹⁰

These risks are lower in countries with well-defined property rights backed by reliable legal systems. Alesina and Dollar (2000) find that foreign direct investment tends to flow to countries with stronger rule of law; Wei (2000) finds the same to a limited extent for less corrupt countries. In a head-to-head comparison of several governance-related measures, Busse and Hefeker (2007) find that government stability, the absence of violent conflict, and the rule of law are all major draws for FDI, and that democracy and corruption are secondary factors.¹¹

The challenges faced by foreign investors parallel those faced by aid donors who know that their funds will be more effective in countries with better property rights and legal regimes, or those faced by Bretton Woods technocrats hoping to get their money back from dodgy borrowers. Policy conditions are not exactly on the table for most multinational corporations, but they have developed some instruments to deal with this risk. Bilateral investment treaties can attempt to address the deficiencies in law enforcement inherent to an international system. In countries with little constraint on executive and high levels of corruption, corporate investors can also simply opt to take lower stakes in investment projects. Partnership with better-connected local firms may provide some protection from unscrupulous government officials. Or, alternatively, partnership with firms connected to

¹⁰In practice, the distinction between “indirect expropriation” and routine host government regulatory activity is a topic of some controversy. For a synopsis of thinking and law surrounding the issue, see Organisation for Economic Co-operation and Development (2004).

¹¹Many of these factors are explored in an edited volume by Jensen et al. (2012) examining how various political factors can influence multinational firms’ investment decisions.

the state itself might be enough of a carrot to the government to stave off direct or indirect expropriation (Delios and W. Henisz, 2000; W. Henisz, 2000, 2002).¹² Finally, there is the most powerful tool of all: simply choosing to invest in safer countries over riskier ones.

This chapter so far has looked at grants and loans from national governments, conditional loans from multilateral organizations, and equity investments by private firms. These actors must all worry about risks to financial return to the degree that it is expected. This can be accomplished a variety of different mechanisms including policy conditions, joint ventures with the local government, and simply allocating capital to safer markets. Where nation-state financiers are concerned, however, managing risks to financial return is often at odds with using economic tools to reward friendly states.

2.2 China

The Chinese state is a complicated, multifaceted organization serving a variety of interests through a variety of ministries. Some of these interests are mutually reinforcing; others are in competition with one another. The same goes for the ministries themselves. This chapter will not provide a thorough accounting of the Chinese system—volumes have been written on this complex topic—but will instead focus on issues immediately relevant to development finance. It will do so by addressing two interrelated questions. First, toward what national interests might China use development finance? The first section lists China's pertinent national interests, the primary independent variables for this dissertation. Second, what features of China's politics and economy predispose it to use certain tools of devel-

¹²This last possibility parallels the findings of Dreher, Fuchs, Hodler, et al. (2014), who find that Chinese development finance in Africa disproportionately flows to leaders' home regions.

opment finance? The second section identifies China's latecomer status to development finance, its statist political economy, and its emphasis on particularistic relationships over stable rule of law as important factors shaping what kinds of development finance it uses abroad.

2.2.1 The Independent Variables: China's National Interests

This dissertation's primary independent variables are, as in the case of most previous works on development finance, donor national interests. However, the exact nature of the interests being considered is somewhat different in the Chinese case. Prior studies have focused on national interests which are readily comparable across donors: for example, diplomatic interests as measured by United Nations voting, security interests as measured by arms transfers, or commercial interests as measured by trade and investment volumes. King, Keohane, and Verba (1994) write that studies of single cases can make up for having a sample size of one by looking at variation within the case. A common example would be scholars of American politics comparing the fifty states. I use a similar strategy. The "usual suspects" of development finance regression models are readily comparable across donors but are not particularly deep or detailed indicators. United Nations voting alignment, for example, provides a rough indication of coincidence of interests, but it masks variation in the types of interests shared. For example, a donor and recipient attempting to address transnational threats along a shared border might use different financial arrangements than a donor-recipient pair more concerned about balancing a common state rival, or another pair worried about freedom of navigation through an important chokepoint. Looking at a single donor allows us to differentiate finer grains of detail in national interests.

Sutter (2016) offers a nutshell summary of the Chinese leadership's primary goals:

[...] Chinese leaders continue to share certain overarching objectives:

- They seek to perpetuate their power and avoid the fate of the Soviet Union and other Eastern European communist regimes.
- They pursue territorial unification and integrity, especially with Taiwan, and to a lesser degree, claims in the East China, South China, and Yellow Seas and claims regarding India.
- They also seek to modernize China's economic, technological, and military capabilities and improve social conditions while maintaining stability. (33)

This passage is a simplified snapshot drawn from a much more detailed volume, but it does serve as a heuristic for thinking about basic Chinese interests. The first order of business is always regime survival; the second two bullet points flow from here. "Territorial unification" is about maintaining legitimacy in the eyes of the public (Zhao, 2004). "[Improving] social conditions while maintaining stability" is a nod to the performance legitimacy earned by the regime in exchange for economic growth, stable employment, and (increasingly) environmental and governance concerns.¹³ These concerns could affect development finance via the following channels: 1) diplomatic objectives; 2) geostrategic concerns; and 3) commercial interests; and 4) management of governance-related risks to loan repayment and returns on investment.

2.2.1.1 Diplomatic Interests

China's pertinent diplomatic interests are of two types. First are issues of national territory, namely claims to Taiwan and the South China Sea. From China's perspective, these are both domestic issues, but convincing other countries that they are domestic issues is a matter of diplomacy, often of an economic variety. Second are more general interests in

¹³China's domestic economic concerns are most central to this dissertation, although there may be some environmental benefits to China in using development finance to offshore dirty industries such as coal power generation and steel.

maintaining diplomatic alignment in fora such as the United Nations, especially on controversial issues regarding human rights. International reactions to Chinese treatment of domestic dissenters is on some level a question of territorial integrity, especially with regards to Tibet and Xinjiang, where China's sovereignty is not always viewed in a positive light. However, human rights issues in Tibet, Xinjiang, and Han-majority areas are less sensitive than the South China Sea and (especially) Taiwan for the simple reason that China exercises uncontested control over its claims on the Asian mainland, but only partial control over the South China Sea and much less over the *de facto* independently governed island of Taiwan. Both sets of interests are here discussed in turn.

Territorial Claims: Taiwan and the South China Sea Beijing traditionally views Taiwan's status as a "core interest" (核心利益); to China, the unresolved legacy of the Chinese Civil War is a domestic issue and as such is not negotiable on the international stage. This issue has receded with respect to most recipient countries. As of this writing, only sixteen countries still recognize the Republic of China on Taiwan, but the Taiwan issue is quite important to mainland Chinese policy in these countries and a few others which might consider switching recognition back to Taipei. All but the Vatican are developing countries, and a game of rival aid disbursements has resulted in the People's Republic of China (PRC, or the "mainland") peeling away most of Taiwan's diplomatic allies (Ministry of Foreign Affairs, Republic of China (Taiwan), 2019). Rigger (2011) sees this as part of the mainland Chinese government's legitimacy, writing that "PRC leaders have turned the Taiwan issue into a yardstick by which their own performance is measured. No leader can afford to appear irresolute in protecting what the CCP [Chinese Communist Party] defines as a core interest of the Chinese nation" (174). Chinese sources make a similar point, albeit typically without direct reference to the relationship between regime and citizens. Diao Li [刁莉]

and He Fan [何帆] (2008) write that “the Taiwan question always has a direct influence on China’s diplomacy and foreign development assistance policy. Much Chinese foreign assistance is aimed at curbing ‘Taiwanese independence’.”¹⁴ (6) Dreher, Fuchs, Parks, et al. (2018) find that diplomatic recognition of Taiwan leads to fewer Chinese grants and loans. Cheung, Haan, et al. (2014) find that in countries which recognize Taiwan, fewer construction projects are contracted to Chinese firms, although they fail to account for the distinction between projects backed by Chinese banks and instances in which Chinese firms compete for externally funded bids. Mattlin and Nojonen (2015) write that this constitutes a type of “political conditionality” attached to Chinese loans.

China’s claims to the uninhabited islands and reefs of the South China Sea are a second-order concern relative to Taiwan, but they also make an appearance in China’s international development finance policy in the relevant countries of Southeast Asia. Beijing claims islands and features across the South China Sea whose related exclusive economic zones (EEZs) would encompass much of the Sea; these claims overlap those of Brunei, Malaysia, the Philippines, Taiwan, and Vietnam.¹⁵ The Southeast Asian claimants, especially the Philippines and Vietnam, have tried to strengthen their hand against their larger neighbor via regional solidarity at the Association of Southeast Asian Nations (ASEAN), a diplomatic organization. China has used tools of economic statecraft to win the loyalties of some local governments and prevent the possibility of a united ASEAN front on the South China Sea dispute. Chinese aid can convince some Southeast Asian governments not to

¹⁴ Author’s own translation. Scare quotes around “Taiwanese independence” in original. Original Chinese: “台湾问题一直对中国的外交和对外援助政策有直接的影响, 中国的许多对外援助有着遏制‘台独’的考虑。”

¹⁵ China also includes on its official maps a “Nine-Dash line” around much of the South China Sea. This line’s meaning has never been fully clarified and could arguably mean that Indonesia is also a disputant. The exclusive economic zone (EEZ) surrounding Indonesia’s Natuna Islands appears to overlap with the Nine-Dash Line, and while Beijing has wavered on clarifying exactly where its claim’s boundary lies, the Indonesian government is increasingly wary on this front. See Hunt (2017).

vote for a joint statement in favor of Southeast Asian interests which per ASEAN tradition would require unanimity (O'Neill, 2014a; Pang, 2017).¹⁶

Other Diplomatic Interests Because China does not fully control Taiwan or the South China Sea, they are particularly sore subjects, but some less sensitive issues also touch upon the all-important goals of territorial integrity and regime legitimacy. China has always been highly cognizant of the equalizing implications of the UN's "one country, one vote" principle and has historically used development finance to cultivate likeminded partners across the world. During the Cold War, this meant reaching out to postcolonial states in Bandung-esque South-South solidarity. While the Cold War may have faded, Beijing and many developing world leaders still share a certain emphasis on sovereignty and non-interference.¹⁷ Beijing does not want international organizations looking into an African state's internal problems any more than it wants them paying attention to Tibet or Xinjiang, and strong voting alignment between China and developing countries, particularly in Africa, reflects this fact (Eisenman, Heginbotham, and Mitchell, 2007; Shinn and Eisenman, 2012).

¹⁶The South China Sea could also be considered a geostrategic issue, given the large volume of trade that flows through it and its importance to Chinese naval power projection (China Power, 2017). This distinction between diplomatic and geostrategic objectives, however, does not much matter in this case. Either way, China will try to use favorable financing terms to win over partner countries.

¹⁷This may be beginning to fade. The construction of a naval base in Djibouti, more active territorial disputes with the Philippines and Vietnam, and the 2018 takeover of the management of Sri Lanka's Hambantota Port do not square well with China's image as a country which never interferes in others' affairs or sends troops overseas. On a more positive note, China is contributing substantially to peacekeeping and peacebuilding operations, especially via the United Nations, and is increasingly comfortable with the role of mediator in security disputes. However, Beijing's diplomatic rhetoric has not changed, and it is still probably too soon to tell how much recent events will ultimately affect China's image. See Alden and Large (2015) and C. Zheng (2016).

2.2.1.2 Geostrategic Interests

Geostrategic significance is a mainstay of the development finance literature, and it is worth enumerating what it means in China's case. Nathan and Scobell (2012) conceptualize China's security strategy in a series of concentric "rings" around the homeland, with areas closest to home being most important. Geopolitical issues surrounding countries nearer China often have some bearing on China's internal social stability via cross-border security concerns; those further away, more often through the geopolitics of securing trade routes.

The "ring" of countries bordering China includes unstable places about which Beijing has understandable concerns. The Central Asian republics are home to friendly governments and unfriendly jihadist movements. The governments of Central Asia are reliable allies in China's own fight against terrorism, but Beijing has long feared collaboration between Uyghur separatists in Xinjiang and militant groups in neighboring countries, and these fears have materialized in recent years. Murphy (2017) sees economic cooperation between China and the Central Asian states as a joint effort at maintaining stability all sides of the region's borders, lest a problem spot in one country spill over into its neighbors' territories.¹⁸ This concern is much more immediately relevant for China's policy in Afghanistan and Pakistan (T. Miller, 2017). Similar, if less dramatic, dynamics are at play with respect to Myanmar. Especially before Myanmar's 2012 transition from military to civilian rules, China struggled to contain cross-border ethnic insurgencies. Narcotics and human trafficking flows from the lawless regions of northern Myanmar are still an issue. China faces incentives to use economic resources to keep Myanmar's employment figures strong and

¹⁸Recent events in Xinjiang could hypothetically interfere with these relationships, although this seems to be the case in some countries much more than others. Many Central Asian leaders fear jihadist movements in their own territories and are loath to refuse Chinese support even as hundreds of thousands to millions are interned in Soviet-style reeducation camps.

insurgencies and criminal organizations weak (Yun Sun, 2017a).

The potential for cross-border security problems fades with increasing distance from China. Lum et al. (2009) and Nathan and Scobell (2012) find that economic concerns predominate over security in China's policy in further-flung regions like Africa and Latin America. China's previously mentioned commercial concerns regarding resource security and access to export markets generate navigational concerns as well, especially as regards to westward transportation of goods between China and markets in Africa, Europe, and the Middle East.¹⁹ Closest to home, this insecurity contributes China's stance in the aforementioned South China Sea dispute; here, diplomatic and geostrategic motives overlap. Further afield, China is concerned with shipping in the Indian Ocean. Yung and Rustici (2014) see China building a series of "dual-use logistics facilities" around the rim of the Indian Ocean. These small facilities, typically attached to Chinese-built commercial ports, would not be survivable in a major power war, but would suffice for routine resupply needs, small local conflicts, counterpiracy, rescue, and evacuation operations. China's 2016 establishment in Djibouti of its first overseas naval base is consistent with this assessment. Of course, it will likely be decades before China can effectively compete with American or Indian forces in the Indian Ocean, but there are other ways around China's navigational problem.²⁰

The naming of China's "Belt and Road Initiative"—formerly known as "One Belt, One Road"—says as much. The "Belt" crosses overland from China to Europe, while the 21st-Century Maritime Silk "Road" is the aforementioned series of ports originally concentrated in the Indian Ocean, but increasingly dispersed globally.²¹ Some of the ports along the

¹⁹The trans-Pacific route to the Americas is also important, but the lack of major inhabited landmasses in the North Pacific means that economic policy is not a viable means of securing this route.

²⁰For a more in-depth discussion of the trajectory of Chinese naval strategy and force structure over time, see Cole (2012).

²¹The Belt and Road has since been expanded to include virtually every region of the globe, but its Eurasian

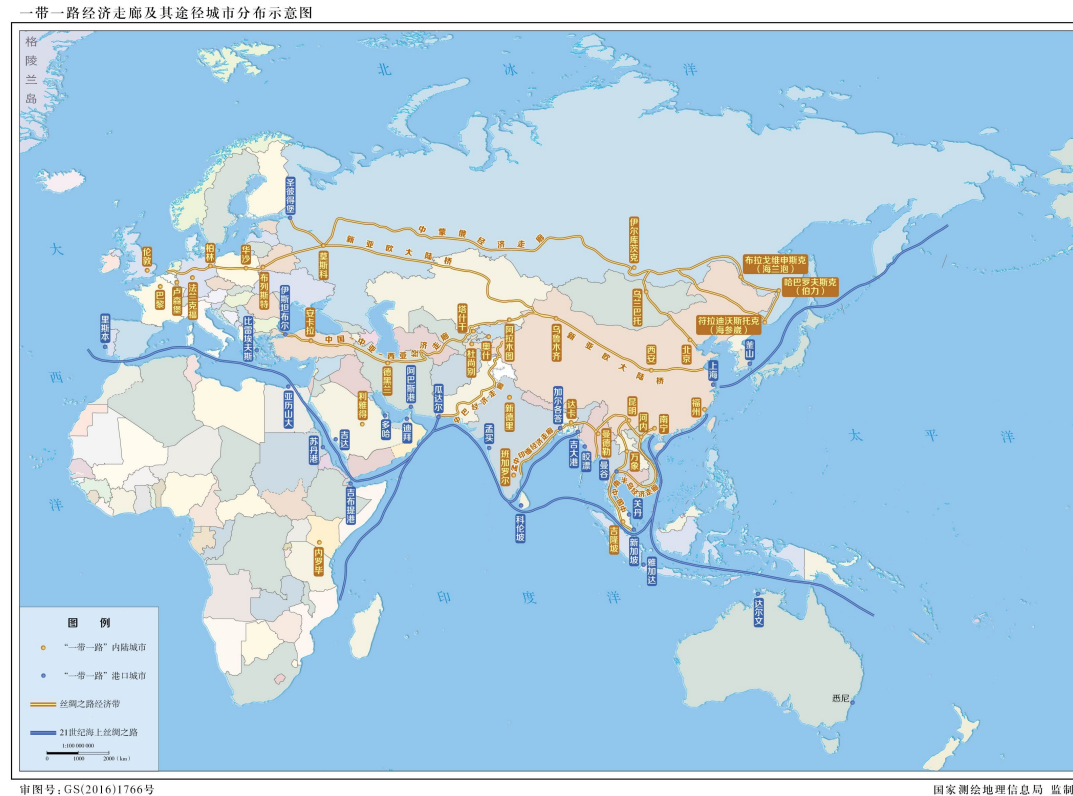
Maritime Silk Road are in strategically important locations such as chokepoints, although by no means all or even most. Many are more unambiguously commercial in nature. The overland “Belt” is further divided into six “economic corridors” (经济走廊):²²

1. The “New Eurasian Land Bridge” (新欧亚大陆桥) connecting the western border of Xinjiang in northwestern China to Kazakhstan, Russia, and on to Europe.
2. The “China-Mongolia-Russia Corridor” (中蒙俄走廊) running north from the Chinese border into Mongolia and Siberia.
3. The “China-Central Asia-West Asia Corridor” (中国—中亚—西亚走廊) connecting (again) Xinjiang to Kazakhstan and on through the other Central Asian states, Iran, and Turkey.
4. The “China-Indochina Peninsula Corridor” (中国—中南半岛走廊) starting at China’s southern border and continuing through Laos, Cambodia, Thailand, Malaysia, and Singapore. Vietnam is now also mentioned as part of the corridor, although this was not clear at first.
5. The “China-Pakistan Corridor” (中巴走廊), also referred to in English as the “China-Pakistan Economic Corridor” (CPEC). This corridor begins in Xinjiang and traverses the length of Pakistan down to the Indian Ocean port of Gwadar.
6. The “Bangladesh-China-India-Myanmar Corridor” (孟中印缅走廊), often referred to in English by the less unwieldy “BCIM.” Older projects along this route connect southwestern China to central Myanmar and onward to the Myanmar port of Sittwe.

roots still reflect China’s transit security concerns. The English-language name change from “One Belt, One Road” to “Belt and Road Initiative” was at least partially due to many foreign observers’ confusion as to how limited the initiative was to Eurasia; the name in Chinese has remained the same. I use the newer term here.

²²Listing of corridors taken from the official Belt and Road Portal [中国一带一路网] (2018).

Figure 2.1: Map of Belt and Road Economic Corridors and Cities Along Routes



Map prepared by State Bureau of Surveying and Mapping [国家测绘地理信息局] in 2016 and found at Belt and Road Portal [中国一带一路网] (2018). The above English title is the author's translation of the original Chinese title. Per legend at bottom left, orange represents overland cities and routes, and blue represents maritime.

A newer initiative connects the Myanmar projects to Bangladesh and eastern India.

These connectivity projects bring the stated benefits of stimulating growth in landlocked Central Asian countries as well as China's poorer interior provinces, but they also carry strategic significance. K. Yu (2017) states that "Chinese authorities are concerned that the country's trade routes, which are surrounded by U.S. allies, could possibly be cut off in extreme circumstances" (34). In particular, China worries about the Strait of Malacca, where the United States Navy could disrupt shipping traffic. Energy pipeline and other

connectivity projects across Central Asia and Russia allow China to diversify away from overreliance on the Strait of Malacca, as do two ongoing Chinese-funded overland pipeline and transportation projects linking western China to the Indian Ocean via Myanmar and Pakistan (Kugelman, 2017; Rolland, 2017).

These transportation corridors facilitate the movement of goods, but do not guarantee that markets at the opposite end of the road will be open and friendly, or that China will be competitive there.²³ These interests require attention not just along the road to partner countries but also at the roads' termini. I now turn to Chinese financing to address these concerns.

2.2.1.3 Commercial Interests: Raw Imports and Processed Exports

China's position in the global economy as the world's "factory floor" means that it is dependent on both foreign raw materials, of which it has little at home, and export markets for its manufactured goods. As of 2016, China imported 66.8 percent of its oil and 34.4 percent of its natural gas (U.S. Energy Information Administration, 2017). These numbers are not unusual among industrialized states—countries such as Germany, Japan, and South Korea all have it worse—but are still a source of concern for a regime focused on maintaining steady employment and social stability. The numbers are starker for many metals. As of 2016, China accounted for 73.9 percent of global imports of unagglomerated (unprocessed) iron ore, 21.9 percent of agglomerated iron, 43.3 percent of raw copper ore, 35.3 percent of refined copper, and 43.0 percent of cobalt (United Nations, 2018).

Secure access to these resources underpins Chinese employment levels and social stabil-

²³S. Chen (2011) makes this point for global energy markets: measures facilitating the production of oil and gas do not necessarily guarantee its safe arrival in Chinese harbors, and safer transportation networks may not address risks to production.

ity. It is accepted conventional wisdom at this point that access to natural resources is a major part of China's economic engagement in the developing world (E. Economy and Levi, 2014; Moyo, 2012; Zweig and Bi, 2005). Perhaps somewhat underappreciated is the parallel exigency of generating business for Chinese construction firms. The "Going Out" initiative to encourage firms to expand internationally has become much more important since China's own economic slowdown from 2010 through the present, as the government fears the effects of industrial-sector bankruptcies on domestic employment and social stability (Arnson, Heine, and Zaino, 2014; Ellis, 2014; Rolland, 2017). The literature on Chinese overseas economic engagement in the 2000s tended to prioritize resource security, but export motivations are gaining in importance. China's labor force is no longer as cheap as during the boom years of the 2000s, and the government and firms alike are in the midst of a push to upgrade to higher technology industries which typically require fewer raw materials. The Made in China 2025 initiative is the centerpiece of this development, committing state resources to develop such technologies as artificial intelligence, electric cars, high-speed rail, and renewable energy. Making room for these new industries makes offshoring the old all the more important (Kennedy, 2015).²⁴ Johnston (2019) adds a demographic component: China's population is aging rapidly, and it makes sense to move labor-intensive industries to younger, lower-income countries.²⁵

²⁴The ongoing US-China trade war makes this exigency even more urgent.

²⁵This trend could in the long run lead to lower Chinese demand for commodities. Even if demand growth slows, limited domestic reserves mean that China will be reliant on foreign oil and gas for the foreseeable future, but metals usage could fall substantially depending on the degree of structural transformation in the Chinese economy. This trend could have some bearing on future Chinese development finance. This (along with other future trends) will be discussed in the conclusion chapter.

2.2.1.4 Managing Governance Risk

Perhaps the most obvious interest of any lender or investor is being paid back or maintaining their investment's value, respectively. This chapter has established the choice between putting money into countries with stable business environments or finding ways to manage risk in those without. Governance risk is difficult to define. For the purposes of this dissertation I will draw on the work of Bergara, W. J. Henisz, and Spiller (1998) to define it as susceptibility to arbitrary encroachment by the recipient government on lender and/or investor interests. This can include direct expropriation, indirect expropriation (via tactics such as conjuring unanticipated taxes or "fees" once a company has already invested), and corruption. China has its own ways of managing these risks, but its calculus varies substantially by type of financing. I will discuss China's tools in more depth in the next chapter on China's different types of economic engagement.

2.2.2 The Chinese Case: Enablers and Constraints

The previous section has outlined the dissertation's primary independent variables, China's national interests. However, before moving on to the dependent variable—stringency in China's international development finance—some explanation of the Chinese domestic system is in order. The literature on the Bretton Woods institutions operationalizes financial stringency as the number of policy conditions attached, which is an appropriate measure for those institutions. However, conditionality was the product of the confluence of prevailing liberal ideas, especially after the end of the Cold War. During the time period when conditionality rose to its current stature in global development, China did not have the resources to act as more than a minor player in global development finance, and most of its development institutions were domestically focused. These institutions' approach to

doing business abroad carries the legacies both of China's successful drive to develop at home and of the sheer fact that they arrived on the international financial scene much later than many counterparts.

China is different in three ways that affect its modalities of development finance. First, it is a latecomer to global development finance, meaning it must either compete against established actors in lucrative markets or operate alone in more difficult ones. Second, China's domestic political economy is the product of an incomplete transition from communism to market capitalism. The heavy role of the state in financial markets opens the door to both positives such as long term-oriented projects backed by state-owned banks which can afford to wait for results, and to negatives such as the use of state credit as a form of patronage. Third, China does not have a strong tradition of domestic rule of law. So, Chinese financiers tend less toward making deals according to firm contracts and letter of the law, and more toward informal mechanisms such as using access to bank credit as a form of insurance and flexible interpretation of handshake deals. As we shall see, Chinese commercial actors bring many of these tendencies to their overseas dealings. The rest of this section will explain these points in greater detail.

2.2.2.1 Latecomer Status

China, like many other emerging markets, is a latecomer to development finance. China has contributed small amounts to global development finance since the dust settled in the years following the 1949 revolution that brought the Communist Party to power, but for the remainder of the 20th century was simply too poor to keep up with industrialized donor states. This all changed around the turn of the millennium, as the Chinese leadership recognized the need to put to use rapidly growing stockpiles of foreign currencies earned via the

factory export boom. In 1999, the Chinese government announced a policy of “Going Out” (走出去) encouraging firms to do business abroad (General Office of the State Council of the People’s Republic of China [中华人民共和国国务院办公厅], 2006). This general reorientation toward corporate internationalization coincided with the impressive growth in official development finance outflows shown in Figure 1.1 of the previous chapter.

Because its development finance regime did not fully take shape until relatively recently, China is not subject to a series of agreements governing international aid and other official flows. Many international customs regarding development finance are issued by the OECD, of which China is not a member. One such convention is that delineating “aid” (ODA) from non-aid (OOF). China was not at the table when it was decided that all flows with a grant element of more than 25 percent will be considered aid, and it does not take the distinction particularly seriously.²⁶ Another convention of importance is the OECD’s stance against “tying” aid, or requiring that projects be carried out by firms from the donor country. This practice was once a widespread means by which donors used aid to support their own mercantile interests, but has been phased out over time. Studies such as Jepma (1991) have found that tying aid can inflate costs by somewhere between 10 and 30 percent, depending on the circumstances. This is not surprising, since the policy is designed to inhibit competition from potentially more efficient rivals. Because of this problem, OECD members have pledged to phase out tied aid as part of the 2005 Paris Declaration (Organisation for Economic Co-operation and Development, 2005).

China, on the other hand, ties virtually all of its grants and loans. The Export-Import Bank of China and the China Development Bank, China’s two major development finance lenders, require that 50 percent of contract value go to Chinese firms (Bräutigam, 2011;

²⁶This point will be elaborated further in the Theory section as part of a discussion of how most Chinese experts *do* think about development finance.

Export-Import Bank of China [中国进出口银行], 2000; Feigenbaum, 2017). A look through the Chinese development finance projects listed by AidData's *Global Chinese Official Finance* dataset reveal only a handful of clear exceptions, many of which involve loans from Chinese banks to local microfinance or small business-oriented banks and could not be easily done by a Chinese construction contractor (Dreher, Fuchs, Parks, et al., 2018).²⁷ In practice, the actual percentage of contract value tied to Chinese firms is typically well above the 50 percent legal minimum. Exact figures on this topic are scarce, but Cheng Cheng [程诚] (2018) reports that concessional loans are between 70 and 90 percent tied and grants and zero-interest loans are 100 percent tied (104-105).

China's willingness to profit from development finance deals is frequently trumpeted as a strength by Chinese officials. Most Chinese official documents on the subject make heavy use of catchphrases such as "win-win" (双赢) and "mutual benefit" (互惠互利) as well as references to national sovereignty. The promotion of "win-win" deals implies that there is no shame in doing well by doing good. Chinese sources have historically avoided terms like "donor" and "recipient," instead opting for the more horizontal development "partner" (伙伴). The message is fairly clear: while the developed nations favor a vertical relationship between rich donors and poor recipients, China favors a horizontal relationship between two parties who both get something out of the deal (Moyo, 2009; State Council of the People's Republic of China [中华人民共和国国务院], 2011; Mawdsley, 2012; Cheng Cheng [程诚], 2018, pp. 2–5). Chinese sources tend to play up this approach's respect for developing countries' sovereignty concerns, which as a fellow developing state China is in a position to understand.²⁸ This can be contrasted to the greater degree of interference in

²⁷ Another notable exception involves energy and mining dealings in Kazakhstan, where Chinese state lenders have issued direct loans to local firms. This unusual case will be covered in the Kazakhstan case study.

²⁸ For prominent examples of official Chinese doctrine on foreign assistance, see State Council of the

domestic affairs inherent to policy conditionality.

Much less openly heralded is the issue posed by Chinese public opinion. Foreign aid can be controversial in many donor countries. Political conditions do not permit reliable polling in China, but since its income per capita is a fraction that of most developed nations, sacrificing wealth for others is harder to justify to a Chinese citizen than to a developed world peer. This point makes it into very few Western works—Christensen (2015) is an exception—and is too sensitive to be stated in most Chinese works, but is typically among the first issues raised in conversations with Chinese specialists and is pervasive in conversations with most Chinese citizens.²⁹

Finally, latecomer status has left China with weaker investment options than countries which industrialized earlier. Many of the choicest bits of the developing world were already taken, and China has been left with the difficult parts. Authors such as S. Chen (2008, pp. 95–96) argue that this means China must operate with additional caution in order to safeguard its interests, further reinforcing a tendency to maximize benefits to the Chinese side as well as the recipients (“win-win”). As a later developer, China is not subject to OECD conventions on development finance but is frequently subject to great political risk in difficult investment environments. These facts combined with lower incomes at home and a degree of empathy with formerly colonized states generate a different approach to development finance.³⁰

People’s Republic of China [中华人民共和国国务院] (2010, 2011, 2013, 2014).

²⁹Conversations with Chinese academics and central government staff, Beijing, September–November 2018.

³⁰China was never fully colonized, but this point is frequently glossed over in official PRC texts.

2.2.2.2 China's Domestic Political Economy

China's domestic political economy is substantively more statist than those of most other major development finance providers. This has an effect on how it approaches development finance. Looking at a sample of OECD countries, Dietrich (2016) finds that countries which tend to outsource more public services at home to the private sector are also more likely to outsource overseas aid to NGOs or private firms. Outsourcing is one way to get around the hazards of giving money to unsavory leaders, but not all countries are equally likely to use it. Were we to extrapolate Dietrich's logic to China, we would place China at the far statist end of the spectrum, beyond any OECD member. China has an authoritarian state with little room for independent civil society, meaning few NGOs, and a historical normative preference for state provision of public services. Most large firms are state-owned, and many large private firms act in some ways as if they were state-owned, participating in state-sanctioned international development projects and coordinating with government ministries in ways little distinguishable from their formally state-owned colleagues.³¹ Outsourcing to NGOs is not an option for China, and even transactions with domestically based private firms are not credibly arms-length. The tools at China's disposal are fairly different from those used by OECD countries.

These tools have roots in both quantitative and qualitative characteristics of China's domestic political economy. First is the sheer quantitative heft of the public sector in the Chinese system. A greater degree of state influence puts the government in a better position to marshal economic resources toward its own interests, domestic or international, without as much input from private actors as would be necessary in other systems. Second, the Chi-

³¹Prominent examples include the telecommunications firms Huawei and Zhongxing Telecommunication Equipment (ZTE), recent controversies about which illustrate the uncertain boundary between private and public businesses in China.

nese system is the product of a partial transition from communism to capitalism. The banks are predominantly state-owned and still issue credit on a highly subsidized basis. This can allow for credit to go to socially beneficial projects in which the private sector is not interested, or to prop up many inefficient state-owned firms in the name of domestic stability. At the international level, subsidized credit allows Chinese firms to take on levels of risk that others might not. Third, differential treatment of small and large firms leads to different strategies. National-level state-owned enterprises typically have no problem maintaining access to low-interest loans from state-owned banks; the way in which China's political and economic systems are interconnected guarantees it. Smaller, (sometimes) more efficient local actors respond to their relative disadvantage by routing bank funds through local government organizations with the explicit role of furthering the Party's developmental goals, and sometimes by using land as collateral in the hopes that debt-backed development projects will cause the land to appreciate in value. These strategies are paralleled in China's international development finance. Low-interest loans to large state-owned firms enable these companies to do business abroad at deflated prices, frequently to the delight of host governments. This less stringent type of deal, however, is not universal. Some markets are too risky for even state-backed firms to want to brave on their own; in these cases, China's domestic experience with using taxpayer funds routed through state-owned banks to prop up risky local development projects takes an international turn. And, as was the case for Chinese localities securing loans with land, this sometimes entails the use of local assets as collateral.

This section treats each of these three issues sequentially.

Sheer Statism: The Chinese State's Control of National Wealth The Chinese state plays a larger role in the economy than in most other countries, meaning that it can more

Figure 2.2: Percentage of Net National Wealth Held by Public Sector, 2015

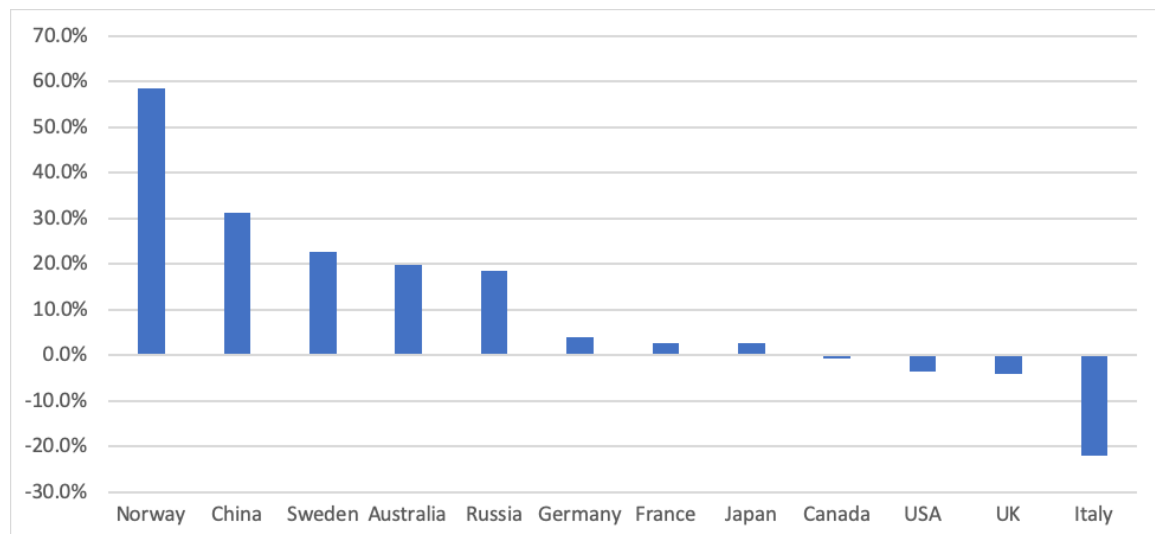


Figure created by author using data from Alvaredo et al. (2018).

easily marshal resources toward development finance and can more readily direct banks and firms to participate in development projects. Data on national wealth compiled by Piketty, L. Yang, and Zucman (2017) provide a useful starting point. They estimate the Chinese public sector's share of national wealth at around 31.4 percent. For reference's sake, Figure 2.2 illustrates the public sector's share of national wealth (net of liabilities) for all countries for which 2015 data is available from the *World Inequality Database*.³²

The 31.4 percent of national wealth held by China's public sector may not sound like much, but in the Alvaredo et al. (2018) dataset, it is second only to Norway, whose oil-based sovereign wealth fund makes it something of an outlier. Large donors Germany, France, and Japan have fewer public assets and more public debt, meaning that net state control of national wealth hovers just above zero. The public sectors of Canada, the United States, United Kingdom, and Italy actually owe more in debt than they control in assets, meaning that their governments have less fiscal room to maneuver in overseas development finance

³²This database was created by Alvaredo et al. (2018), a team of coauthors including Piketty and Zucman.

(or in any other issue area).

What's more, this estimate of China's public sector wealth understates the actual role of the Chinese government in the economy. First, it is based on the assumption that housing is privatized; a debatable assumption, given that all land is still technically publicly owned. "Homeowners" actually hold titles to seventy-year leases which can be unilaterally canceled by the state (State Council of the People's Republic of China [中华人民共和国国务院], 1990). If one ignores housing, which in any event is less relevant to international development finance, we are left with the authors' two other sectoral categories: the corporate sector (66 percent publicly owned) and the residual "other domestic capital and net financial assets," a potpourri of agricultural, banking, and other assets which is 48 percent publicly owned.³³ In other words, the sectors most relevant to development finance—financial institutions which bankroll projects and firms which implement them—are still heavily state-controlled. The state also deploys tools to exercise influence over the corporate sector beyond the powers it holds on paper. Scissors (2016) writes that in order to comply with World Trade Organization (WTO) expectations for a country labeled as a "market economy," China has carried out incomplete privatization of some firms, retaining a minority state interest while allowing the majority of shares to be held publicly. Official Chinese statistics list these firms as private, but the state is still often the largest shareholder and easily overpowers the dispersed collection of smaller institutional or household investors who often hold public shares.³⁴ More importantly, the stock market is not central

³³The residual category includes farmland, tenant rights to which are fairly tenuous. Farmland vacated by migrants to the cities turns over to the state, meaning expropriations are more common in the rural areas than the cities. Cognizant of this fact, the authors treat farmland as somewhere between 70 percent and 40 percent publicly owned based on time-specific market trends. Because farmland is a small portion of aggregate national wealth, they find that alterations to the 40-70 percent window do not materially affect total estimates of public wealth.

³⁴The Chinese stock market is fairly closed to foreign investment.

to Chinese firms' success. Most Chinese firms rely more on debt financing than equity, and the banking system is predominantly state-controlled. The Chinese state is more involved in the economy than even its share of legal ownership would indicate.

Piketty, L. Yang, and Zucman allude to the implications of public wealth for state policy, writing that:

The structure of national property has large implications for economic development. The size of public property affects the State's ability to conduct industrial and regional development policy (sometime in an efficient way, sometime less so). It also has potentially large fiscal consequences: governments with negative net public wealth typically must pay large interest payments before they can finance public spending and welfare transfers, while those with large positive net public wealth can benefit from substantial capital income and finance more spending than what they levy in taxes. (22-23)

Essentially, governments which control greater shares of national wealth are in stronger positions to actively influence the economy; those in debt, much less so. The authors shy away from taking any position on whether this type of state influence in the economy is a good or bad thing—to use their words, states act “sometimes in an efficient way, sometimes less so”—and in doing so neatly sum up the debate over China's use of state finances, which opens up possibilities both positive and negative. Their focus is on domestic developmental policy, but as we shall see, they could just as easily have been talking about international development finance.

Financial Repression and Incomplete Marketization These statistics belie the fact that China's state used to control an even higher share of national wealth. China has undergone an incomplete transition from communism to capitalism. Some sectors of the economy are highly marketized, and others are mostly state-led. As of this writing, further marketiza-

tion has ground to a halt, and the less efficient state-led sector is propped up by a system of subsidized credit. The rest of this subsection details how this state of affairs came to pass, what it means for larger state-owned Chinese firms, and how smaller firms can try to compete.

Unsurprisingly, Piketty, L. Yang, and Zucman estimate that the Chinese state controls a much smaller percentage of wealth than in the Maoist years lasting through the 1970s—31 percent today, as opposed to 69 percent in 1978. Their choice of starting year is not a coincidence. In the late 1970s, Deng Xiaoping took over as leader of China and initiated a policy of “reform and opening up” (改革开放), implementing internal marketizing reforms and greater openness to external trade and investment. Naughton (1996, 2006) writes that China has taken a piecemeal, gradualist approach to reform aimed at opening up new, more productive economic sectors while minimizing the disruption that would come with destroying the old. Of particular note was Deng’s use of “dual-track” systems (双轨制). Under Mao, farms and factories were subject to quotas, meaning that they were expected to produce up to a certain point for a national distribution organization which would purchase at a fixed price. However, Deng allowed them to produce past this quota point and sell the additional output on the open market at market prices, which were typically higher than quota prices. These firms also gravitated toward areas of Chinese comparative advantage in labor-intensive light manufacturing, which had been shortchanged by Mao’s desire to build a heavy industrial base for China’s defense needs. During the 1980s and 1990s, the new market “track” gained significant clout relative to the fixed-price “track.”

As the real economy evolved, the financial system was under corresponding pressure to change. When Deng took power, China’s banks were essentially Soviet-style resource allocation machines taking in state revenues and disbursing them to favored sectors. These

banks existed (and still exist)³⁵ under a regime of financial repression. Under financial repression, interest rates are held artificially low, typically below the rate of inflation. This means that there is a *de facto* “tax” on bank depositors whose assets lose real value every year and that banks can then use the proceeds of this “tax” to lend to targeted firms or industries at subsidized interest rates. Financial repression was a very common strategy for industrializing countries in the 20th century; in the Chinese case, it dates back to the Mao era.³⁶ Interest rates were typically very low, and there was no pretense of trying to earn profits from loans or even strictly demanding repayment—this was not the point (Lardy, 2008; Kroeber, 2016, pp. 131–33).

Even as China’s economy began to marketize, these subsidized loans were targeted at the old state-owned behemoths and did not always reach the newer, nimbler, smaller market-oriented firms which became increasingly important. China’s leaders faced an awkward choice. On one hand, reallocating bank credit from inefficient state-owned heavy industry to efficient new light manufacturing firms would lead to aggregate gains in output. On the other, allowing the old giants to flounder or fail could lead to enormous waves of unemployment. McMillan and Naughton (1992) compared this dilemma to that faced by Eastern European leaders during the “Big Bang” transition from communism to capitalism. They argued that moving more slowly allows leaders to monitor reform policies and safeguard against negative unintended consequences while progressively building state capacity to regulate markets. Given the course of events in Russia in the 1990s, they appear to have been quite prescient. However, the time did eventually come to make actual cuts to the

³⁵China is currently in the process of liberalizing interest rates, removing state controls for specific types of deposits and wealth products one at a time. However, even if these controls are lifted, interest rates are still subject to the monetary policy of the People’s Bank of China (PBoC), the central bank. The PBoC is not fully independent of the state and so far has been cautious about raising interest rates too quickly (Song, 2017).

³⁶See McKinnon (1993) for a discussion of financial repression and liberalization in developing countries.

inefficient state sector—to borrow the title of Naughton (1996), to “[grow] out of the plan.” Naughton (2006) writes that by the 1990s, there was an increasing sense that China’s new economy had grown large enough to absorb some workers were there to be layoffs in the state sector. However, this would not mean wholesale closing down the largest state-owned firms—this would be a taller order than the new light manufacturing sector could fill. So, the economically focused Premier Zhu Rongji began an effort to “grasp the large and let go of the small” (握大放小), curtailing bank credit to many smaller insolvent firms in heavy industries such as coal and steel which had been favored by the Maoist leadership in the mid-20th century. In the financial sector, Zhu imposed greater profitability requirements on the “Big Four”³⁷ state-owned banks, incentivizing them to make fewer non-performing loans (NPLs)—essentially, loans that are not being paid back—to unprofitable so-called “zombie firms” being kept alive only by a steady diet of state credit.

Some firms indeed went under, but in hindsight, it is now clear that reforms have not gone as far as some liberal-minded observers might have guessed. As of December 2018, the China Banking and Insurance Regulatory Commission [中国银行保险监督管理委员会] (2019) estimated that 17.6 percent of assets in the banking system belong to “joint-stock commercial banks” (股份制商业银行), the official term for banks set up as corporations with private shareholders. This estimate should be taken with a grain of salt. The government holds stakes in some joint-stock banks, and some state-owned banks allow minority stakes to be publicly traded. The Chinese financial system across the board engages in some activities which are not recorded in government statistics. However, we can take the official statistics as a rough indicator of the strength of the private sector in the banking

³⁷The Big Four are the Agricultural Bank of China, Bank of China, Construction Bank of China, and Industrial and Commercial Bank of China (ICBC). Some sources consider the Bank of Communications to be a fifth.

system.

The remaining 82.4 percent or so of financial assets belong to state-owned banks of various stripes. These include six “large commercial banks” (大型商业银行) which control 35.5 percent of national assets as well as a variety of smaller, often locally or regionally focused banks. Of special note are China’s three “policy banks,” the Agricultural Development Bank of China, China Development Bank, and Export-Import Bank of China. In 1994, as Zhu Rongji’s banking reforms were beginning to ask more of commercial banks in terms of profitability, these three banks were created to lend at lower interest rates toward projects of particular social or economic significance. For example, they frequently lend to infrastructure projects with low rates of financial return but positive spillover effects for nearby residents and users. Some losses, or at the very least extended periods of initial unprofitability, are more acceptable for these banks; as we shall see in the following chapter, they have carried this tolerance for risk and loss into many international markets (M. Chen, 2018; Sanderson and Forsythe, 2013). As of the end of 2017, the most recent year for which they have published data, the policy banks account for 10.1 percent of China’s total banking assets.³⁸

How the Big Stay Big and the Small Survive: The Economics of Financial Repression Meets the Politics of the Party How has a system of state-owned banks and financial repression managed to endure for so long, despite decades of criticism? The answer to this question is multifaceted and reflects different sets of circumstances among larger national-level firms and smaller local ones. Many larger firms may be inefficient legacies of the

³⁸Calculation: (6,221,499,000,000 ADBC + 15,593,000,000,000 CDB + 3,640,596,582,870 Exim) / 252,404,000,000,000 national total RMB. Data on policy bank assets from China [中国农业发展银行] (2018), China Development Bank [中国开发银行] (2018), and China [中国进出口银行] (2018). Data on aggregate national banking assets from China Banking Regulatory Commission [中国银行业监督管理委员会] (2018).

communist past, but they employ far too many people to be left to flounder. Local enterprises can thrive in a giant-centric financial system by routing funding through local governments and presenting themselves as designated development initiatives in line with Party economic goals, or they can use land as collateral for development projects knowing that the projects themselves will probably cause it to appreciate.

Underlying state-owned banks' interactions with large and small firms alike is the fact that they awkwardly serve two masters: profits and the state. On one hand, bank managers face incentives to show profits to shareholders (even minority ones) and government bosses; on the other, government bosses might sometimes encourage them to sacrifice profits for the greater good. Coming out of Zhu Rongji's reform years of the 1990s, Brandt and Zhu (2000) noted that while private firms posted better profits, large state-owned firms employed disproportionate numbers of citizens. Government leaders concerned with social stability could not ignore this fact, and Zhu Rongji's "grasp the big and let go of the small" never progressed past smaller firms. Lin and Tan (1999) make a related observation regarding state-owned firms' "soft budget constraints." For most firms, losing money would be considered a problem, and the firms must invest and spend within a "hard budget constraint" to avoid losing money. China's state-owned firms, however, know that if they run into problems, the government has no choice but to bail them out. This moral hazard problem means that firms are likely to overinvest in risky projects with the expectation that the government will pick up the check if things go poorly. Depressed interest rates via financial repression makes the budget constraint even softer, but Party leaders are loath to directly address the issue. Allowing interest rates to rise would put unprofitable state-owned firms in a financial crunch, potentially taking many well-paying jobs and local cadre performance assessments down with them.

In hindsight, Brandt and Zhu may have only been seeing the beginnings of things to come. Because China's government officials are often judged based on short-term economic results, they often reinforce the banks' tendency to keep throwing good money after bad. China's political system is a hierarchy consisting of five layers: the central government, the provinces, prefectures, townships, and villages, in that order. Local officials can be promoted, moved, or demoted based on performance. These personnel decisions are made by officials at higher levels of government. H. Li and L.-A. Zhou (2005) find that provincial-level promotion and demotion decisions are significantly based on economic performance. V. C. Shih, Adolph, and M. Liu (2012) later found that political connections and educational qualifications are actually more important than economic performance for top central appointments; Choi (2012) finds that political connections and economic performance both matter for top positions, but economic performance predominates at the lower levels.

The upshot of this literature is that all cadres are to some degree concerned with economic performance, but the way in which they address these concerns varies by level of government. Upper-level officials are more concerned with state-owned giants and will ensure that they continue to receive preferential treatment from the banks. Lower-level officials are judged more intensively based on economic results than on their typically weaker political connections, but they face these demands under the constraint of being the banks' second priority after the Beijing-based behemoths. In response, local officials blur the line between state bureaucrat and industrial tycoon. Especially early in China's development process, many municipalities had little industry to speak of, and they were typically not going to be able to compete with well-connected national-level state-owned enterprises (SOEs) for cheap loans with optional repayment. Instead, they used their own latent economic potential as collateral. This typically happened through two interrelated mechanisms: land-based

financing and local government financing vehicles (LGFVs).

Yeh and Wu (1996) and Sanderson and Forsythe (2013) speak of the utility of land as a means for financing industrialization. Because all land in China is publicly owned, local governments can borrow money to build up certain areas with new housing and industry in the knowledge that this will cause neighboring plots of land to appreciate in value. They can then sell the rights to use this nearby land to property developers, many of whom have bank connections of their own, and then use the proceeds from sales to pay down their original debts. Peterson (2006) specifies that this mechanism is particularly useful for building infrastructure. Other projects such as industrial buildings are more likely to generate enough revenue by themselves to repay debt, but infrastructural projects frequently struggle to do this. However, highways and the like typically cause the value of neighboring land to spike, opening the door for land-based financing schemes. Peterson estimated that, at least as of 2006, many Chinese municipalities financed over half of their infrastructure budgets in this manner. Sanderson and Forsythe (2013) add that many local growth efforts are led by local government financing vehicles (LGFVs; 地方政府融资平台), entities owned by the local government which borrow from banks and channel the money into local investment projects. These organizations often blur the line between public and private, acting much like privately owned real estate trusts would in more marketized countries (Y. S. Zhang and Barnett, 2014). Many land-backed development projects are carried out through LGFVs.

This system—subsidized credit to national giants, and land- or local government-backed deals for smaller actors—has now spread overseas as Chinese commercial actors become more global. One way to do business overseas is to rely on subsidized credit at home to outbid the competition on contracts abroad or to make an equity investment on “sweetheart”

terms. This type of deal effectively transfers a Chinese state subsidy to the host country and is obviously desirable from the host's perspective. However, not all potential host countries are equally profitable. In those with serious creditworthiness concerns, it may be necessary to take measures paralleling those used by local Chinese actors to operate within a financial system which is inherently skewed toward larger peers. Local government financing vehicles (LGFVs) can steer credit toward preferred projects involving local firms; even if these projects are losers in the long run, they can create local employment. This mechanism is replicated through the use of tied loans in which credit is steered toward preferred Chinese companies which will be sure to receive their cut of a project's proceeds and will leave the bank and the borrower country on the hook if a project fails. In tougher business environments, something approximating land-based financing can be used. The land-backed model is difficult to implement in countries with secure landowner tenure, and only a handful of Chinese firms have used it overseas.³⁹ However, natural resources are publicly owned in most countries and can be readily used as collateral or repayment, especially where Chinese extractive industries are involved.

Before we elaborate upon how these modalities fit into a broader theory of development finance, we turn to one last important difference between China and most other development financiers: the lack of the rule of law.

2.2.2.3 Whither the Rule of Law

The rule of law is almost unanimously cited as a positive for virtually any outcome of interest, but there are silver linings to doing without it. While stable adherence to written contracts is good for investment, it also takes away a degree of flexibility in adapting to

³⁹There is some discussion of this model being used in places including Jamaica and Rwanda, but only in isolated instances.

unforeseen circumstances which are disproportionately likely to pop up in rural China or large parts of the Global South. This subsection traces the history of China's simultaneous promotion of growth and investment and neglect of the rule of law before moving to explain what a non-legalistic system means for domestic development and, by extension, how Chinese financial organizations do business abroad.

China's decades-long effort to foster the growth of new economic sectors and slowly use them to replace the old was necessarily *ad hoc* in nature. The two-track pricing system implemented under Deng—a lower government-determined price for state requisitions up to a certain quota and a higher market-determined price for production beyond the quota—necessitated bargaining on a case-by-case basis. It would be unreasonable to expect a small village-based factory, for example, to produce the same amount as a large plant in a major city. Shirk (1993) writes that Deng and the early reformers used a system of “particularistic contracts” to address these issues, eschewing a system of universal rules in favor of a series of individual bargains.

This system unfortunately generated enormous opportunities for rent-seeking and corruption. Black marketeers could buy at the quota price and sell on the open market. This was much easier to do if one had political connections, meaning that officials and firm bosses could collude in corrupt dealings and even (if highly enough ranked) manipulate prices toward their own advantage. As the ownership structure of the Chinese economy began to open up, the gains from these dealings put many officials in the position to buy actual stakes in firms (Manion, 2004). The semi-liberalized financial system made this problem worse. V. C. Shih (2004b) finds that bank loans tend to go to the politically well-connected. In related works, V. C. Shih (2004a, 2009) continues with the alarming finding that pro-reform technocrats tend to ignore these dodgy politically motivated loans and instead focus

their efforts on containing the inflation that naturally results from excessive lending. Even high-ranking reformist figures such as Premier Zhu Rongji could not guarantee their political survival were they to take on the financial system underpinning the enrichment of the elite. Better to treat the symptoms and ignore the cure than to try to treat both and fail. Even when banks deviate from their state-owned focus and lend to the private sector, W. Zhou (2009) finds that they disproportionately target firms owned by members of sub-national legislatures. Pei (2006) speaks of a “trapped transition” in which well-connected elites benefit from the inefficient state-owned sector and block efforts to reallocate capital to more productive private firms.⁴⁰

None of this portends well for the rule of law. As of 2017, the World Bank’s World-wide Governance Indicators rank China 117th out of 210 countries in the Rule of Law category, and 112th in Control of Corruption (Kaufmann and Kraay, 2018). This places China in the middle of the global distribution, but toward the bottom among development finance donors. Table 2.1 lists Rule of Law and Control of Corruption scores for leading donors.

⁴⁰See also Pei (2016).

Table 2.1: Worldwide Governance Indicator Rankings by Country, 2017

<i>Country</i>	<i>Rule of Law, Score</i>	<i>Rule of Law, Rank (out of 210)</i>	<i>Country</i>	<i>Control of Corruption, Score</i>	<i>Control of Corruption, Rank (out of 210)</i>
United Kingdom	1.68	16	United Kingdom	1.84	12
United States	1.64	18	Germany	1.84	13
Germany	1.61	19	Japan	1.52	21
Japan	1.57	22	United States	1.38	24
France	1.44	23	France	1.26	27
South Korea	1.16	31	South Korea	0.48	68
Saudi Arabia	0.10	90	Saudi Arabia	0.36	72
India	0.00	99	South Africa	-0.01	91
South Africa	-0.01	100	India	-0.24	108
China	-0.26	116	China	-0.27	112
Brazil	-0.28	118	Brazil	-0.53	134
Russia	-0.79	163	Russia	-0.89	173

Compiled by author from Kaufmann and Kraay (2018).

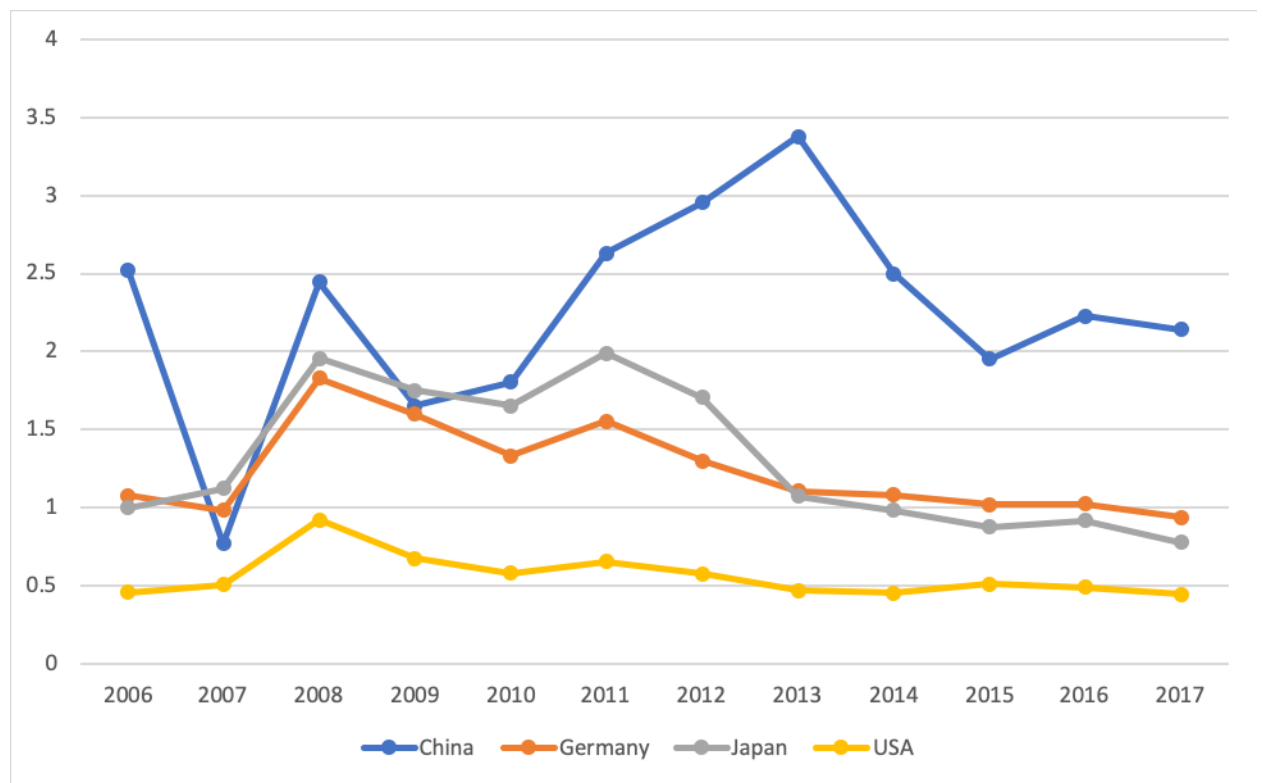
There are countries with more corruption and weaker rule of law than China, but most are not major development financiers. China does not have a historical tradition of rule of law, and it would be a stretch to say that this ranking is only because of political economy trends of the past forty years.

There are obvious reasons to see China's low governance ranking as bad for economic outcomes, but there are also (less obvious) reasons to see it is a positive. Pessimists point to a growing mass of non-performing debts held by unprofitable firms or well-connected people and see an impending crisis (Lardy, 2019; Lu and T. Sun, 2013; McMahon, 2018; Wright and Rosen, 2018). Others might see these debts as an acceptable price for the enormous gains that China has made since 1978. How has a chaotic, breakneck accumulation of largely unsupervised loans resulted in one of history's greatest periods of economic expansion?

The answer lies in the successful use of that debt—or at least some of it—toward productive ends. Hall and Soskice (2001) write that in markets in which banks play a larger role in corporate governance, firms are more likely to take a long-term orientation, while firms relying on equity will think shorter-term. Stock market investors tend to value firms based on quarterly earnings reports and do not always plan to stay invested for long enough to see long-term projects come to fruition. Banks, however, typically provide financing on a longer-term basis and are more comfortable with a slow-and-steady strategy. Hall and Soskice's book focused on advanced industrial economies, contrasting bank-centric systems in places such as Japan and parts of continental Europe with the equity-heavy Anglo-American model. China again lies further to one end of the spectrum than these countries.

Figure 2.3 depicts the ratio of corporate debt outside the financial sector to the total market

Figure 2.3: Ratio of Non-Financial Corporate Debt to Listed Firm Market Capitalization, 2006-2017



Graph created by author based on data from Bank for International Settlements (2018) for debt and World Bank (2018c) for equity.

capitalization of publicly traded firms.⁴¹ Germany and Japan are certainly more debt-heavy than the stock market-focused United States, but China's underdeveloped stock market and bank-centered political economy put it in another league. While some take this as a sign of trouble, others praise the banks' deployment of "patient capital," to use Hall and Soskice's term. These scholars would argue that there is some utility in allowing companies to move more slowly.

Lin's "new structural economics" makes just such a case (Lin, 2011b, 2012).⁴² The first World Bank Chief Economist to come from a developing country, Justin Yifu Lin has become a prominent cheerleader for China's approach to development. Lin focuses on the idea of comparative advantage—hardly a new idea, he says, but one which is not fully exploited. Lin argues that certain bottlenecks can inhibit market forces from ever fully making use of a country's comparative advantage. To be more specific, he states that:

[...] economic development as a dynamic process entails structural changes, involving industrial upgrading and corresponding improvements in "hard" (tangible) and "soft" (intangible) infrastructure at each level. Such upgrading and improvements require an inherent coordination, with large externalities to firms' transaction costs and returns to capital investment. Thus, in addition to an effective market mechanism, the government should play an active role in facilitating structural changes. (Lin, 2012, pp. 14–15)

⁴¹This chart uses loans to non-financial corporations as a measurement of debt. The inclusion of financial corporations would have led to more listed debt for the developed countries and especially the United States, where debt derivatives are traded in large volumes with little immediate connection to end users, and government bonds constitute a large part of the landscape as well. Since this chart is meant to reflect the role of debt in corporate governance, it is best to focus on the portion of debt which actually reaches corporations.

⁴²This work is part of a larger body of related works built up over Lin's career. See also Lin (2009) and Lin, Cai, and Z. Li (2003). Going further back, Lin's thought draws on a large literature regarding "developmental states" in which governments seek to actively guide market behavior to enhance economic growth, especially in developing countries. See, for example, Johnson (1982), Woo-Cumings (1999), and Kohli (2004). Lin, Cai, and Z. Li (2003) nod to this fact, comparing the Chinese experience to those of four other East Asian states.

It is well known that factor endowments are important to determining economic structure (Heckscher, 1919; Solow, 1956). For example, a country rich in labor will likely be strong in light manufacturing; a country with more land, agriculture. Lin argues that these factor endowments can actually be changed by effective government policy. A poor agrarian country might stay poor forever unless it builds up factors of production that facilitate a structural transformation toward a higher value-added form of activity such as light manufacturing or services. Because these new industries are weak, financial institutions will not back them; because financial institutions will not back them, they stay weak. Lin focuses on actualizing potential comparative advantage in new sectors through building “hard and soft infrastructure.” Lin and Monga (2012) further specify that “examples of hard infrastructure are highways, port facilities, airports, telecommunication systems, electricity grids and other public utilities. Soft infrastructure consists of institutions, regulations, social capital, value systems, and other social and economic arrangements.” (168) Better hard infrastructure can lower firms’ transaction costs and thus allow them to operate and compete for capital more efficiently. However, infrastructure projects are typically not very profitable, and no less a free marketeer than Adam A. Smith (1776) cited “public works” as a necessary area for state involvement. China’s debt-fueled buildup operated according to a similar logic: using government credit to build up infrastructure around which industry can grow, then using the industries’ profits and sale of surrounding land rights to repay the debts.

The soft infrastructure part of the equation would be more controversial in China’s case. China never had much in the way of soft infrastructure, and the manner in which it has pushed for hard infrastructure has slowed any progress in “softer” areas. China has an uncomfortable mix of impressive economic results and rent-seeking by central and local

elites. Proponents of China's developmental model either do not talk about the dislocation generated by land-based financing and the corruption of the financial system or quietly acknowledge it as a price of progress. There may even be some benefits to building hard infrastructure without soft. One person's "non-performing loan" might be another's "flexible repayment"; lack of strict adherence to debt contracts may well buy slow-moving projects time to deal with unexpected roadblocks, at the expense of allowing less productive ones to flounder on. Chummy relations between state-owned banks and state-owned borrowers amplify this dynamic: they mean more loans to high-risk, low-output projects, but also that default is easier to avoid. When the state's left hand is lending to its right, it is easy enough to simply ignore the debt indefinitely, contracts be damned.⁴³

The Chinese system has generated large amounts of investment and record-breaking economic results, but in the process has inhibited the emergence of the rule of law and has brought about widespread corruption, excess borrowing, and economic overcapacity, not to mention large social and environmental costs outside the limited scope of this work. This contradiction at the heart of the Chinese growth miracle is now being internationalized through cross-border development finance. A loan officer who must choose between a questionable loan to a well-connected Party member and a safer loan to an unconnected but promising entrepreneur might be able to empathize with an international development technocrat choosing between friends of his or her home country with weak institutions or neutral parties with strong institutions. In some cases, the clientelistic, repayment-optional deals common to China's domestic system turn into a form of diplomatic outreach to international partners; in other cases, credit to local cadres' pet projects, sometimes with the backing of land, turns into stricter cross-border deals in which China has a hand in steer-

⁴³Prasad (2016) sees this factor as significantly reducing the risk that China's high levels of debt turn into an overall crisis.

ing credit toward preferred firms and sometimes putting up local resources as collateral. Stricter and laxer forms of finance were already in Chinese organizations' toolkit before they were major international players.

2.3 Concluding Thoughts

This chapter has established that China balances a range of foreign policy interests including the Taiwan issue as well as diplomatic, geostrategic, commercial, and risk management concerns. Its toolkit to confront these foreign policy challenges is an outgrowth of an incomplete marketization process characterized by a strong state; an economic disjuncture between well-connected but inefficient large firms and marginalized but efficient small ones; subsidized government support for preferred firms; cronyistic relations between lender and borrower; the frequent use of land as collateral; and an emphasis on particularistic relations over the rule of law. All of these factors will make an appearance in the following chapter, in which I outline China's tools of international development finance and hypothesize which among them will be used toward which types of foreign policy interests.

Chapter 3

The Dependent Variable and a New Theory

This chapter outlines the dependent variable and the theory. First, I outline the basic theory and hypotheses. Second, I include a brief section connecting the quirks of China's domestic development finance to its international practice. Third, I detail each of China's modalities of overseas development finance and connect them to the hypotheses via a series of expected observable implications. This section also includes summary statistics of each modality of financing and a brief analysis of how the summary statistics compare to theoretical predictions. I then conclude with a summary and several disclaimers.

3.1 The Theory

The literature surrounding conflicting priorities in Bretton Woods policy conditionality can travel to China, with substantial modification. The core idea—that lenders must bal-

ance the need for leniency toward diplomatic partners with strictness in order to ensure repayment—applies. The underlying assumption is that the donor can either push to get its money back or curry favor with the recipient government. The donor's foreign policy interests include both financial repayment and political goals, and meeting one goal may come at the expense of the other. However, in some cases, the opposite is true, and financial repayment may be positively associated with another foreign policy goal. Take the case of China's tied loans. Part of the point is to generate business for sectors struggling with domestic overcapacity, and while China's taxpayers and banks may end up footing the bill for a construction project if a recipient government has trouble paying, the optimal outcome for Chinese commercial interests is obviously repayment according to schedule. Similarly, loans backed by oil are intended to contribute to China's energy security, and if the borrower is unable to produce enough oil to pay back the loan, then the policy has failed. In these cases, China will use stricter terms to enforce its own interests. These mechanisms are not covered in the existing literature for the simple reason that the institutions which have dominated development finance for decades have not used them in some time.¹ The rest of this chapter lays out what types of national interests are complementary with repayment and lead to laxer terms, and what types are supplementary to repayment and lead to stricter terms.

We begin with diplomatic interests. All else equal, we would expect diplomatic interests to lead to more concessional types of financing. The logic here is the same as in the literature on Bretton Woods conditionality outlined in Chapter 2: the tougher a donor gets

¹Japan and South Korea are partial exceptions, especially in the late 20th century. Many Western powers also used tied aid in the 20th century, but the practice was being phased out by the time the policy conditionality literature was beginning to blossom in the 2000s, and policy conditionality scholars overlooked what then might have seemed to be obsolete. Furthermore, the literature's recent focus on the Bretton Woods institutions means that bilateral organizations such as the Japan Bank of International Cooperation (JBIC) which do sometimes use tied or resource-backed loans are not frequently covered.

about financial return, the less happy a recipient is likely to be. However, countries with viewpoints opposite China's—e.g., diplomatic recognition of Taipei or conflicting claims in the South China Sea—present something of a dilemma.² On one hand, China could attempt to win them over with the best possible treatment, but it is difficult to guarantee that the countries will not “take the money and run” without lasting changes in policy. On the other hand, China can punish them by withholding assistance, but this may not incentivize them to change their policies. I hypothesize that China will respond with a combination of these two strategies. China will usually withhold financing to these countries but will make an exception if there appears to be an opportunity to sway policy. This means that the absolute quantity of financing to these countries will be depressed, but when exceptions are made, the quality will be highly concessional in order to present China's most generous possible image. For countries which both recognize Beijing and do not have overlapping claims with China's in the South China Sea, the more conventional logic—diplomatic motives lead to more concessional financing—applies. I hypothesize as follows:

Hypothesis 1A *Countries which recognize Taiwan or whose South China Sea claims overlap China's will receive less official development finance from China.*

Hypothesis 1B *However, countries which recognize Taiwan or whose South China Sea claims overlap China's will receive laxer financing terms.*

Hypothesis 2 *Chinese diplomatic interests other than the Taiwan and South China Sea disputes will lead to laxer financing terms.*

China will also wish to present a friendlier face to countries in which it has geostrategic interests. In general, it makes sense to be as lax as possible with geostrategically important countries rather than risk upsetting them with pesky issues of repayment. In China's case,

²This dilemma is an old one. Baldwin (1966) finds that during the early Cold War, the United States fluctuated every few years between showering Soviet-leaning non-aligned states with aid and cutting them off.

this means giving favorable deals to countries important to border security or navigational interests.

Hypothesis 3A *All else equal, Chinese geostrategic interests will lead to laxer financing terms.*

However, there are exceptions to this rule. In some instances, China will be interested in not only managing bilateral relations with geostrategically important countries, but also building projects there that themselves have geostrategic significance. Examples would be ports along major shipping routes or overland connectivity across Eurasia to the Chinese border. In countries with strong governance environments, Chinese firms can do this without issue, but countries with high levels of corruption present additional challenges. China here might use more stringent terms to mitigate credit risk and push their firms into geostrategically important but commercially risky markets.

This can happen through one of two causal mechanisms. First, firms and lenders will simply ask for more protection to enter certain markets, and the Chinese government will be more willing to oblige them in countries of geostrategic significance. Second, countries with stronger governance are likely to have more available sources of finance and will be able to use these as leverage to bargain for more favorable terms. In a business school favorite, Fisher and Ury (1981) coined the term “BATNA,” short for “best alternative to a negotiated agreement.” Fisher and Ury see the BATNA, or what each party would be left with were talks to totally fall through, as pivotal in determining negotiated outcomes. A party with a strong BATNA can credibly threaten to walk away from the table and can thus extract better terms.

Quantitative analysis can only measure inputs and outcomes and cannot distinguish between intermediary causal mechanisms. Following Brady and Collier (2004), I instead

look for causal process observations in the case studies to test for these mechanisms. In any event, I hypothesize that:

Hypothesis 3B *There will be a negative interactive effect between governance quality and geostrategic importance on the stringency of financing terms.*

Last, but certainly not least, we arrive at commercial interests. Primary drivers of Chinese development finance include both natural resource security and the need to maintain employment in overcapacity-ridden construction sectors. Berthélemy (2006) argues that more concessional aid is better for promoting trade interests, the idea being that a steady flow of aid can convince recipients to keep commercial barriers low. This is certainly a valid strategy. However, it assumes that repayment of aid and the donor's commercial interests are unrelated; as in, grants to curry favor with local officials with power over economic decision-making. In China's case, repayment and commercial interests are frequently one and the same, as deals are structured such that repayment serves Chinese export interests and (in some cases) Chinese resource security.³ So, we arrive at the following hypothesis:

Hypothesis 4A *All else equal, Chinese commercial interests will lead to stricter financing terms.*

As was the case for geostrategic interests, governance risk has a mediating effect on this relationship. Countries with natural resources and patterns of weak governance will be unattractive to Chinese firms, which will require extra incentivization to do business there. Stricter financing terms can mitigate risk and spur them in this direction. Relatively isolated from global markets, states with reputations for poor governance will more likely accept

³While there are isolated instances of China using development finance as a bargaining chip in trade disputes—this has happened in Argentina, for example—it may matter that China's rise as a development financier mostly took place in the context of a strong WTO and low global trade barriers.

stricter Chinese terms that might be turned down elsewhere. (The logic here is essentially the same as for Hypothesis 3B). The same is true for export or repayment interests: the more money a Chinese firm or bank has at stake, the harder it will push for stricter terms which provide it with better insurance, and the more likely the government will be to agree. Stated simply:

Hypothesis 4B *There will be a negative interactive effect between governance quality and commercial interests on the stringency of financing terms.*

Before moving on to the dependent variable, it is worth noting that there is the appearance of a degree of overlap between geostrategic interests and commercial interests, especially with respect to natural resources. Resource security is not always thought of as separate from security of other types. For the purposes of this dissertation, “resource security” involves events in the country in which commodities are produced, while transportation of said resources back to China (or other importing markets) counts as part of geostrategic interests. This distinction may be artificial in other contexts but makes sense when analyzing Chinese development finance. The beginning of this section established that financiers face incentives to be stricter when pursuing interests that can be promoted via financial terms but to improve bilateral relations via laxer terms otherwise. Some of China’s tougher loan conditions (especially resource collateralization) are meant to boost its firms’ market share in commodity producing countries, meaning China may be tougher on these states. However, these conditions do nothing to safeguard passage of minerals to China or other importing markets; this passage occurs disproportionately across geostrategically important countries’ territory. China could hypothetically try to use loan terms to maintain transportation access as well, but stipulations of this nature would run afoul of territorial sovereignty and would be of questionable enforceability in a crisis. Instead, China relies more on

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maintaining friendly relations with countries at geostrategically important locations so as to minimize the risk of being locked out of major transportation routes.

The hypotheses included in this section are simple enough on paper, but empirically testing them is more complicated. To do this requires 1) understanding China's conception of development finance and what kind of tools are in its toolkit; and 2) how these tools belong to different bureaucratic organizations and issue areas. For example, grants and zero-interest loans both belong to the Ministry of Commerce and are used for smaller-scale social sector projects, meaning they are more readily comparable to one another than either would be to billion-dollar infrastructure loans from a state-owned policy bank. The next sections cover these issues and proceed to testable implications of the theory.

3.2 The Dependent Variable: Development Finance Stringency and Chinese Conceptions Thereof

The political science literature has typically operationalized development finance stringency as either the distinction between ODA and OOF or as the degree of policy conditionality attached to assistance packages. These are logical choices for most OECD countries and for the Bretton Woods institutions, but the prevailing conception of development finance in China includes a wider variety of policy options. Furthermore, Chinese development finance is less connected to the type of liberal thought that underpins policy conditionality and makes much less of the distinction between “aid” and “business” that underpins the ideas of ODA and OOF. This section will briefly introduce leading Chinese scholars' conceptions of development finance, with a particular focus on how the idea of stringency can be applied.

China's domestic political economy and developmental model inevitably shape the development finance options available to its leaders. Justin Yifu Lin (2011a) has explicitly acknowledged this fact with a series of works applying his new structural economics to Chinese outbound development finance. China's experience in overcoming infrastructural bottlenecks to structural transformation and growth, he says, could also apply to many contemporary low-income countries. Cooperation between China and various partners can help resolve them. Indeed, Bataineh, Bennon, and Fukuyama (2018) write that China's willingness to lose money (or at least wait patiently for profits) has propelled the country to a leadership position in global infrastructure construction. Patience of this nature is much easier with a domestic political economy characterized by a strong state, greater corporate reliance on banks than on the stock market, and a willingness to fudge on debt repayment contracts as unforeseen circumstances emerge. Cheng Cheng [程 诚] (2018) uses the metaphor of the body's circulatory system to describe Sino-African cooperation. A Chinese-built African transportation network should serve as the arteries and veins carrying goods throughout an increasingly thriving continental economy.⁴

However, "development cooperation" between China and lower-income countries is not necessarily limited to "aid" in the conventional sense. A latecomer concerned with using state power to catch up to established financiers and maximize financial returns for its middle-income citizenry, China does not adhere to the OECD distinction between ODA ("aid") and OOF and commercial flows ("business"), instead espousing a business-friendly "win-win" approach. So, a more expansive definition of development finance is necessary. Along with World Bank Senior Economist Wang Yan, Lin does just this. Lin and Y. Wang (2014) conceptualize development finance ("DF") as a series of four concentric rings. To

⁴See also Kaplan (2018).

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AND CHINESE CONCEPTIONS use their exact words, the four subcategories are:

- DF1 = ODA, as defined by OECD-DAC;
- DF2 = DF1 + OOFs, as defined by OECD-DAC;
- DF3 = DF2 + OOF-like loans (loans from state entities for development but at market interest rates);
- DF4 = DF3 + OOF-like investment (equity investment by SWFs [sovereign wealth funds] or enterprises/corporations for development with state involvement through guarantees, etc.) For example, PPP for public infrastructure, such as electricity, water, sanitation, transportation, and other pressing infrastructure bottlenecks. (20)

Lin and Wang explicitly leave the door open for private sector development finance without direct government involvement.⁵ Cheng Cheng [程 诚] (2018) uses their definition, but alters the scope to “official development finance” (ODF), meaning the same four activities but with government involvement. Cheng sees ODF as including any state financial flow for developmental purposes.⁶ As a political science dissertation concerned with state interests, this work will use the “official” qualifier, although this is not to discount the growing role of private investors and philanthropists in China’s outward financial flows.⁷ Some private sector deals will be included in the dissertation, but only either because they are supported by the Chinese state (a form of development finance) or to illustrate what firms do without strong state connections.

⁵Technically, they limit the scope to guarantees and indirect state involvement. In the Chinese context, however, implicit state guarantees are pervasive, and this qualifier does not appreciably narrow the scope.

⁶In practice, a large majority of financial flows could be fairly labeled as having some kind of developmental purpose, so this not much of a restriction. Because the lack of a clear divider between what does and does not have a developmental purpose, this dissertation will analyze projects without regard for this distinction.

⁷W. Chen and H. Tang (2014) and W. Chen, Dollar, and H. Tang (2016) find that while statistics on volumes of investment outflows are dominated by large state-owned firms in the extractive and infrastructure sectors, statistics on numbers of firms skew more toward services and manufacturing. Many private firms and firms affiliated with subnational governments are moving outward, but often in the shadow of giants.

This framework is quite broad, and empirical studies to date have only begun to explore the variation in financing types that can exist within it. Dreher, Nunnenkamp, and Thiele (2011) acknowledge the potential difference between DAC and non-DAC donors and test the hypothesis that aggregate flows from emerging non-DAC donors will target countries with weaker institutions than those from OECD bilateral organizations. They find no evidence of this distinction. Dreher and Fuchs (2015) continue this line of inquiry by homing in on the Chinese case, finding minimal evidence that Chinese aid agencies pay more attention than their OECD counterparts to factors such as diplomatic goals, natural resources, and local institutions. Both of these studies, however, miss quite a bit. They lump together everything from grants of thousands of dollars to multi-billion-dollar oil-backed loan packages, and their null findings may be an artifact of ignoring within-case diversity. Dreher, Fuchs, Parks, et al. (2018) take a positive step in this direction, using what data is available on China's loan terms to sort projects into "ODA-like" and "OOF-like" categories. In keeping with our theory, they find that ODA-like flows are correlated with United Nations voting alignment. OOF-like flows, on the other hand, are correlated with commercial interests such as trade and natural resource wealth as well as strong institutions. In other words, commercial projects are issued on commercial terms with an eye to repayment, but political projects are not. Landry (2019) adds equity investment to the analysis, finding that Chinese investors are more tolerant of corruption risk than their peers from developed countries.

Their analysis constitutes an important first step acknowledging the heterogeneity of economic activity encompassed by the Chinese conception of "development finance," but its two categories are only scratching the surface of what is actually happening beneath.⁸ To

⁸Kitano (2014) refers to these categories as "vague" and insufficiently detailed. Lin and Y. Wang (2017) are less charitable: "China's definition of aid differs from that of the OECD-DAC, so direct comparison is

date, no comprehensive empirical analysis of China's various financial flows has been done. I now turn to this topic.

3.3 Tools of Chinese Development Finance and Theoretical Predictions

Any effort to comprehensively measure Chinese development finance is complicated by the need to compare flows for different-sized projects of different scales from different government organizations. For example, small hospitals or schools in low-income areas are typically done by either grants or zero-interest loans, with one obviously being more stringent than the other. It would not be financially sustainable to use grants for infrastructure projects costing hundreds of millions or billions of dollars, so the most concessional infrastructure projects are still typically tougher on borrowers than the most demanding public health projects. What's more, these types of financial flows and projects are handled by different bureaucratic organizations in China. This section lays out how the primary hypotheses—e.g., diplomatic motives are associated with laxer terms—translate into observable implications once we account for these differences—e.g., for a small public health project, grants will be more associated with diplomatic motives than zero-interest loans. In practice, Chinese development finance can be sorted into five basic groups. First are Chinese firms bidding on construction contracts without project-specific state support. These are not technically development finance, but provide a control group for what firms will do without their home government providing financial incentives for certain types of projects. Second are smaller-scale concessional projects. These are typically in the social

pointless” (95). See also Cheng Cheng [程诚] (2018, pp. 2–5).

sectors, are funded by grants or zero-interest loans, and are run primarily through the Chinese Ministry of Commerce. Larger projects in the extractive and infrastructure sectors are typically funded by either equity investment (the third category), interest-bearing debt (the fourth), or the special case of resource-backed debt (the fifth). The domestic institutional responsibility for these is divided between firms, banks, the Ministry of Commerce, and (for politically high-profile projects) the Ministry of Foreign Affairs. Sixth is the special category of instruments used to deal with distressed debt; these range from forgiveness to foreclosure.

3.3.1 Freelance Construction Contracting

In this scheme, a Chinese firm bids for and wins an overseas development contract funded either locally or by a non-Chinese foreign organization. Despite an at most indirect connection to ministries in Beijing, these activities do actually play a role in China's economic statecraft. This section explains how these activities constitute a discount to the buyer, how this discount can serve as a diplomatic carrot, and how freelance contracting comes at the cost of a degree of direct state ability to guide control firm activity. The section concludes with a summary of predicted observable implications of the theory.

Strictly speaking, freelance contracting is not development finance at all—or, more accurately, it is development finance provided by someone other than China. However, it is still relevant to our conversation. First of all, it constitutes far and away the largest portion of China's overseas economic activity.⁹ Many are surprised to learn that in Africa, an area

⁹This is likely also true for many other countries with strong construction sectors, but data in this area is very sparse. Most countries see freelance activity as the private sector's responsibility and not closely related to national policy. China, with its heavy state role in the construction sector and encouragement of its firms to "go out" (走出去), is an exception, and actually publishes data on global construction contract revenues alongside more traditional categories such as trade and outbound FDI.

of particular interest for the Chinese construction industry, only 26.7 percent of Chinese-built project value receives funding from the Chinese government.¹⁰ This activity is mostly driven by firms seeking profits, and ties to the Chinese state are not immediately apparent, but they do sometimes exist. First, even firms that do not receive explicit project-level financing for a given overseas contract typically receive routine operational financing from state-owned banks as part of China's cheap credit-centered domestic political economy. C. Chen and Orr (2009) and Bhaumik and Co (2011) find this to be a driving factor behind these contractors' success overseas: routine low-interest financing combines with the fact that China is a low-cost country to begin with to make Chinese construction firms highly competitive in international bidding. Firms building construction projects within China face a problem of moral hazard as they can recklessly borrow and build in the knowledge that state-owned banks will bail them out later. If anything, this problem is worse overseas. An overused but informative Chinese proverb holds that "the mountains are high and the emperor is far away" (山高皇帝远), meaning that China's central government has frequently struggled to rein in the leaders of its enormous and disparate provinces.¹¹ If it is difficult to oversee local developers within China, then it is even more difficult to police them once they go abroad.¹² One former developing country ambassador to Beijing stated that he always suspected that when Chinese firms ran into financial trouble carrying out risky projects overseas, banks in the home country would be there to back them up. "I

¹⁰Calculated based on loan disbursement figures from Atkins et al. (2017) and contract revenue figures from National Bureau of Statistics of China (2018). Available data on Africa is more complete than for other regions, for reasons I will discuss in the quantitative analysis chapter. Covers the years 2000-2016.

¹¹Another iteration of this proverb holds that "heaven is high and the emperor is far away" (天高皇帝远), although the mountains separating Beijing from many provinces mean that the topographical version is more pertinent here.

¹²There is a nascent initiative to try to oversee parts of China's development finance apparatus through the new China International Development Cooperation Agency (CIDCA) which was announced in May 2018. I will address this development in the concluding chapter.

would not be privy to such a thing,” he clarified with a smirk.¹³

This kind of activity is not directly coordinated by the Chinese state—several Chinese interviewees expressed doubts that large parts of the policy apparatus in Beijing are even able to keep track of the thousands of firm-led projects active at any given time—but it can serve a certain foreign policy goal. Cheung, Haan, et al. (2014) find that contract revenues are disproportionately derived from states which vote more often with China at the United Nations, but that recognition of Taiwan has no bearing on them. Unfortunately, they do not separate revenues from projects explicitly backed by Chinese banks, which could act as a means of state influence over contracting firms, and the majority which are not. To my knowledge, no one to date has empirically examined this distinction, but I will do so in this dissertation. Cheung, Haan, et al. (2014) were correct in their assessment that China does not restrict its firms from doing business in countries that recognize Taiwan. Indeed, every country that recognizes Taiwan is listed as the source of some construction contract revenues in the official figures of the *China Statistical Yearbook*, meaning both that firms are comfortable reporting their activities in these countries to the Chinese government and that the government then has no problem with publishing it in an open source document (National Bureau of Statistics of China, 2018).

Chinese firms’ cost advantage is also more broadly diplomatically relevant. Since Chinese firms are low-cost even before receiving subsidized credit, their use in developing world infrastructure projects can be a boon to local government budgets. This could encourage closer diplomatic alignment. The Chinese government appears to be aware of this fact: the 2013 official white paper entitled “China-Africa Economic and Trade Cooperation” (《中国与非洲的经贸合作》) even mentions construction and engineering contracts as a

¹³Interview, Washington, DC, June 2018.

selling point alongside investments and more conventional aid arrangements (State Council of the People's Republic of China [中华人民共和国国务院], 2013).

As McKinlay and Little (1977) and Baldwin (1985) both found, however, the real power of grants is in the threat of their withholding.¹⁴ This threat is particularly strong in countries which recognize Taiwan, and to some extent in those with rival South China Sea claims. Beijing allows its firms to do business in these countries but is clearly keeping tabs on their activities and could hypothetically shut down their operations were the host country to take too vocal a stance. Allowing firms to do business in these countries is a clever means of making diplomatic forays there without directly supporting them, which would contradict China's traditional policy of non-engagement with states with which it does not have official diplomatic relations. Of course, direct financial support is waiting for any country which chooses to switch.¹⁵

So, our observable implications connecting freelance construction contracting to the main hypotheses are as follows:

Table 3.1: Observable Implications for Freelance Construction Contracting

<i>Hypothesis</i>	<i>Independent Variable</i>	<i>Predicted Correlation</i>
H1A	Territorial claims (recipient is disputant)	+
H2	General diplomatic interests	+
H3A	Geostrategic interests	+

Legend: "--" = most negative; "-" = negative; "+" = positive; "++" = most positive

The option *not* to deploy development finance is a part of China's policy contingency framework, but it will not take care of all of its national goals. Firms acting in their own interest will sometimes foray into areas which happen to suit state interests, but this is hardly

¹⁴This point is made in more detail in Chapter 2.

¹⁵As Schelling (1966) would have put it, China is showing strength while still leaving some force in reserve.

guaranteed. The state can use tools of development finance to address the gaps between what firms will do when following market incentives and what the state would like them to do. The remainder of this chapter covers these tools.

3.3.2 Smaller-Scale Concessional Flows: Grants and Zero-Interest Loans

China's two most concessional types of financing are grants and zero-interest loans. Bräutigam (2011) writes that "China's foreign aid grants and zero-interest loans are managed by the Ministry of Commerce and usually promote broad diplomacy objectives" (755). Grants, here defined as simple giveaways of cash and/or goods, are obviously as concessional as one could get and per our theory are unsurprisingly useful diplomatic tools. Zero-interest loans, many of which have very long or flexible repayment windows, come in second place for least stringent. What's more, grants and zero-interest loans typically back similar types of projects in the social or government sectors and are both run through the Chinese Ministry of Commerce.¹⁶ The naturally controlled contrast between the two provides a useful test case for this dissertation's theory. If the theory is correct, then grants will be better for diplomatic and geostrategic motives (other than specific assets) than are zero-interest loans. The following subsection reviews the literature on grants and zero-interest loans before proceeding to testable theoretical predictions.

The less a donor demands in explicit financial repayment, the more it can demand in other areas, meaning that grants are ideal for other diplomatic or geostrategic motives. Some scholars frame China's aid program in terms of cultural studies. Before contact with Western imperialists, China was at the center of a "tributary system" in which neighboring states

¹⁶As of this writing, responsibility for these programs is being transferred to the new China International Development Cooperation Agency (CIDCA), although this change is still in early stages of implementation and did not affect the time period being studied.

such as Korea and Vietnam sent emissaries with gifts to the capital as part of a hierarchical system in which the smaller states accepted Chinese superiority in exchange for being mostly left alone. Pan and Lo (2017) cite this as an influence in China's widespread use of aid, and indeed, China sends grants to virtually every developing country that does not recognize Taiwan. Y. Jiang (2011) is more skeptical, arguing that China's lack of economic development and internal divisions over when and where to use aid inhibit the rise of a "benign hegemonic" system. Dreyer (2015) wonders whether most developing states would ever sign on to such a hierarchical system or if it is even logically consistent with China's emphasis on national sovereignty. At any rate, the idea of grants as drawing upon imperial-era Chinese traditions is consistent with our expectation that they will encourage diplomatic friendship.

Sometimes called "interest-free loans,"¹⁷ zero-interest loans (ZILs) are exactly as they sound: loans with no interest attached. After accounting for inflation, recipients typically pay back less than they originally borrowed. In some cases, there is no set payback date, and in more than a few cases there is no publicly stated project designation. This arrangement is obviously quite favorable to the borrower, but like grants, it is not financially self-sustaining. These loans are usually small in size and go towards similar types of projects—small hospitals, schools, etc.—as grants. Of course, zero-interest loans are not quite as concessional as grants, even if they go to similar types of projects. China's aid program is active in most developing countries. In what seems to be the only academic treatment of ZILs to date, Bräutigam (2011) writes that "because external assistance is an instrument of diplomacy, every developing country with which China has diplomatic ties receives offers of grants and zero-interest loans, even those that are wealthier on a per

¹⁷The Chinese literature also uses two terms: 零息贷款(zero-interest loans) and 无息贷款(interest-free loans). I will use "zero-interest loans," although there is no actual difference in meaning.

capita basis” (755). However, not all countries necessarily receive offers on the same terms. Indeed, grants and ZILs might be substitutes for one another. We might expect more small-scale projects to be funded by grants in countries diplomatically closer to China, and ZILs in more aloof states.

For outreach to diplomatic or geostrategic partners, then, China will typically want to use more grants and fewer zero-interest loans to demonstrate its generosity. For countries with which China has frostier relations, replacing grants with zero-interest loans can signal displeasure without completely cutting off aid. In the cases of rival South China Sea claimants or countries which recognize Taiwan, China is unlikely to commit very much money of any kind, but when it senses an opportunity to change leaders’ minds, grants will be a more effective form of persuasion than zero-interest loans.

Those expecting a commercial use for grants might point to the fact that they are run through the Ministry of Commerce, albeit with input from the Ministry of Foreign Affairs (Kobayashi, 2008). D. Zhang and G. Smith (2017) write that the Ministry of Foreign Affairs has *de facto* veto power over most major projects.¹⁸ This leads to an internal bureaucratic version of the tradeoff between foreign policy and commercial goals, and there is a general consensus that relations between the Ministries of Commerce and Foreign Affairs are not very good. However, these mechanisms are at the end of the day somewhat less useful for commercial projects. They are inherently not financially sustainable unless disbursed in small quantities, and so many go to smaller items such as construction of small hospitals, schools, and government buildings; or donations of agricultural or medical equipment. They are not well suited to large infrastructure or industrial projects.¹⁹

¹⁸The Ministry of Finance is sometimes involved as well.

¹⁹In other words, grants go to the social sector, and loans to productive sectors. See J.-Y. Wang (2007, p. 21) and State Council of the People’s Republic of China [中华人民共和国国务院] (2011).

The Ministry of Commerce will sometimes get its way, but more often via other financing mechanisms.

Table 3.2: Observable Implications for Smaller-Scale Concessional Flows

<i>Hypothesis</i>	<i>Independent Variable</i>	<i>Predicted Correlation: Grants</i>	<i>Predicted Correlation: Zero-Interest Loans</i>
H1A	Territorial claims (recipient is disputant)	-	--
H1B	Territorial claims (recipient is not disputant)	+	-
H2	General diplomatic interests	+	-
H3A	Geostrategic interests	+	-

Legend: "--" = most negative; "-" = negative; "+" = positive; "++" = most positive

3.3.3 Equity Investment

If China is to use development finance to guide its firms' behavior, grants and ZILs are unlikely to do the job by themselves. A smattering of small projects here and there is a drop in the bucket for corporations which can net hundreds of millions of dollars on individual projects. Dahl (2007) wrote that "A has power over B to the extent that A can get B to do something that B would not otherwise do". The government will have to put real money on the table to induce firms to take on projects that do not maximize their profits, and large disbursements will require remuneration to sustain themselves in the long run, or at least keep losses within bounds deemed acceptable the government. This can happen via equity or interest-bearing debt. Both are stricter on borrowers than grants or zero-interest loans; for that matter, they also make China appear tougher on borrowers than would allowing freelance contractors to take the lead and leaving the messy business of financing to someone else. Furthermore, I argue that debt is more stringent than equity.

This section explains why equity is less taxing on recipients than debt and what observable implications we can expect from the theory.

Chinese firms, like most other economic actors discussed in this dissertation, worry about poor local governance. Countries with weak property rights and rule of law present heightened risk to firms. Subcontractors might shirk on their obligations or cut corners on quality. Governments might demand bribes or try to renegotiate contracts after work has already begun. Because of their routine low-interest operational financing, Chinese firms have it easier here than most, but all else equal would generally still prefer safer markets to riskier. For projects of a larger scale, especially in the extractive and construction sectors, the government can incentivize firms to take these risks by prodding them to make equity investments or can provide project-specific loans for items or countries of particular interest.

Equity is more amenable to most developing countries' interests than debt. This position contradicts the existing literature. Lin and Y. Wang (2014) and Cheng Cheng [程诚] (2018) see equity as part of the least concessional fourth of four development finance categories, behind loans at market rates. One can understand how this might be true in some optical sense: corporate ownership gives off an air of "business" rather than "aid," while a loan from a Chinese government-owned organization might seem more like a deal between development partners. In practice, however loans are much more demanding of the recipient. Cross-national debt has a long and storied history of generating friction from the 1980s Latin American financial crisis to Africa's stagnant period of the 1990s and the 1997 Asian financial crisis. The term "debt crisis" rolls off the tongue, but there is a reason that the terms "equity crisis" or "investment crisis" are rarely uttered.²⁰ If a debt-funded project generates less return than expected, the borrower country might be in a fiscally difficult

²⁰There is an exception for "hot money" portfolio investments of the type that proved destabilizing during the 1997 Asian financial crisis, but Chinese state-owned firms tend to invest on a more stable, long-term basis.

position, while the lender wonders if they will ever get their money back. If the same happens to an equity-financed project, then the project might generate fewer jobs and profits for the local economy, but without the specter of repayment hanging over local finances. (Or, if there is debt to be repaid, it is held by the foreign investor.) The current backlash to Chinese debt underscores the point: loans simply have more downside risk to the recipient than equity, and they have more of a latent or actualized negative impact on bilateral relations.

At the same time, equity represents a longer-term commitment than debt. After a project is complete and the related loan repaid, the lender has no obvious continuing connection to it.²¹ This is not true where ownership stakes are taken. Y. Wang and D. Li (2019) write that “equity investment allows companies to lock in long-term partnerships, acquire local resources in a lower-cost way, and ensure quick or steady growth in a foreign market.” Whether a firm is interested in natural resources or local market potential, equity investments give them a more lasting gateway to new markets than would debt contracts. This could be taken as a positive in recipient capitals in that it implies a more reliable long-term stream of economic benefits and signals greater commitment on China’s part.

So, equity occupies a middle tier in China’s policy contingency framework: not as concessional as grants or zero-interest loans, but not as strict as interest-bearing debt. This middle tier itself contains a spectrum of possible arrangements, as Chinese firms doing business abroad are quite diverse. On the one hand, many provincial and local state-owned firms carry out business on a small scale with little or no coordination with the central government. While most models of the dollar value of Chinese outbound FDI demonstrate

²¹Chinese firms can actually act as operators on a contract basis with or without taking an equity stake. These “build-operate-transfer” (BOT) and related schemes are increasing in prominence within Chinese development finance and may represent a middle option between debt and equity, but the data on them is regrettably very sparse to date. See Leutert (2019) and Y. Wang and D. Li (2019).

attraction to natural resources, W. Chen and H. Tang (2014) and W. Chen, Dollar, and H. Tang (2016) find that models of the number of investing firms show a larger presence in the service and trading sectors and tend to go to the most profitable sectors of a given country. Case studies of Kenya and Tanzania confirm a large amount of under-reporting in the agricultural and manufacturing sectors (Xia, 2019a; Xia, 2019b). Many of these smaller firms are private and thus excluded from the scope of this (political science) dissertation, but some belong to provincial or local governments. These are more akin to state-owned construction contractors winning bids on their own time: they might bolster China's image abroad, but they do so out of concern for their own profits and without much direct input from Beijing.

On the other hand, larger, better-connected state-owned firms are able to use government funds to provide a degree of protection from local governance risk, but at the expense of having to answer more frequently to government priorities. State management of risk via equity deals is a relatively new topic in the literature on foreign direct investment, which understandably has treated FDI as the preserve of the private sector. Newer works on the case of China establish to what degree Chinese state-owned firms look out after their own interests as opposed to those of the government. Most large Chinese investors are state-owned but possess a substantial degree of managerial independence. A body of work focusing on the oil and gas sector treats this as a classic principal-agent problem. S. Chen (2009), Kong (2010), Erica S. Downs (2011), and Tunsjø (2013) all see firms as profit-oriented organizations receiving backing from a state with other interests.²² Like other firms, they typically prefer to enter safer, more profitable markets. However, they also accept low-interest state credit in order to gain a competitive advantage and in return agree to enter some difficult

²²Rithmire (2019) adds that the relative roles of state connections and resources varies substantially from firm to firm.

markets in the name of national energy security (not to mention their own learning and skills upgrading). As was the case for construction contractors, Warner, S. H. Ng, and X. Xu (2004) find that access to cheap state credit fuels Chinese state-owned firms' "going out" strategies; P. J. Buckley et al. (2007), Cheung and Qian (2009), and Kang (2018) replicate this finding and add that it allows these firms to operate in more corrupt markets while being steered to countries with high natural resource endowments. Duanmu (2014) similarly finds that state-owned firms can use their connection to a powerful organization to ward off host government interference in their operations and as such have a degree of insulation from local corruption. Shi (2015) finds that larger, predominantly state-owned firms have better access to cheap credit and are thus disproportionately well represented in outbound investment flows.²³ China's two-track financial system in which state banks prop up large, inefficient firms in the name of full employment is now being taken abroad.

Even apart from state support, there are reasons that Chinese equity investors might be more resistant to dealing with governance risks. As one Chinese development expert put it to me, Chinese firms have for decades found ways to make money in a home market that is "a little bit messy" and do not have much difficulty replicating this success elsewhere.²⁴ Empirical studies back up this assertion by drawing on a literature on "institutional distance," or the differential between home and host country institutions, as an obstacle to foreign investment (Eden and S. R. Miller, 2004; D. Xu and Shenkar, 2002). Aleksynska and Havrylchyk (2013) find that firms from emerging markets such as China and Russia are less deterred by poor host country governance environments than firms from more devel-

²³This is more true in the Global South than the Global North. Many more privatized Chinese firms have actually been edged out of their own market by state-connected competitors and have fled to safer, more developed markets, as have those who have used political connections to enrich themselves at the expense of state goals. See Rithmire (2019).

²⁴Original Chinese: "有点乱。" Beijing, September 2018.

oped markets. However, they find that this “institutional distance” effect only works in one direction. Firms from countries with stronger governance have a hard time acclimating to countries with weaker governance, but firms from countries with weaker governance have less difficulty in adjusting to stable legal environments. Kang (2018) applies Aleksynska and Havrylchyk’s logic to the commodity sector, finding that Chinese firms are more drawn to natural resource endowments in countries with low institutional distance from China and higher political risk. W. Chen, Dollar, and H. Tang (2016) and Landry (2019) similarly find a null relationship between Chinese investment and local governance risk, as opposed to a predictably negative one for other investor countries. China’s domestic lack of rule of law is, perhaps oddly, an advantage for its firms in certain overseas markets.

For equity as a whole, we expect the following observable implications. I do not list separate predictions for different types of investing firms because publicly available data is not complete enough to quantitatively test these differences, although I will discuss them in the case studies.

Table 3.3: Observable Implications for Equity Investment

<i>Hypothesis</i>	<i>Independent Variable</i>	<i>Predicted Correlation</i>
H1A	Territorial claims (recipient is disputant)	-
H1B	Territorial claims (recipient is not disputant)	+
H2	General diplomatic interests	+
H3A	Geostrategic interests	+
H4A	Commercial interests	+

Legend: “--” = most negative; “-” = negative; “+” = positive; “++” = most positive

3.3.4 Interest-Bearing Loans

State-backed equity investments provide a degree of protection against risk without generating too much friction between the investing and recipient governments. However, in the

toughest environments—and as a latecomer, China is often left with these—this degree of risk protection may not be enough. In these cases, China has two further tools at its disposal: interest-bearing loans and resource-backed loans. Resource-backed loans are a more stringent subset of interest-bearing loans in which mortgage tags are put on recipient commodities. These will be discussed in the next section; this section will focus on loans backed by plain cash. It introduces China's tied loan structure and explain how this structure manages governance risk; how it can promote resource security and safeguard specific assets; and why it is counterproductive for diplomatic and geostrategic concerns. It will end with a summary of observable implications.

China's overseas tied loans typically begin with one of two policy banks, the China Development Bank (CDB) or Export-Import Bank of China (Exim). Exim focuses on more concessional projects in lower-income countries, while CDB often lends at higher interest rates in middle-income countries.²⁵ Whichever bank is involved disburses funds directly to a Chinese contractor tasked with carrying out a project. The host government then repays the loan to the contractor with interest according to an agreed-upon timetable.

First, and perhaps most obviously, this mechanism serves China's commercial interests in generating business for its firms, especially those in sectors suffering from overcapacity at home. However, tied loans are especially noteworthy for not just promoting these firms, but also for protecting them from recipient country governance risk. They do so in two ways. First, the bank serves as a backstop to contractors' profits in case the borrower fails to repay. The moral hazard created by a guaranteed bank bailout is not an unintended consequence

²⁵ As previously detailed, China's policy banks were founded in 1994 to make up for the fact that commercial banks were being pushed toward profitability and could no longer fund "patient capital"-type infrastructure projects which generated more benefits for society than for their financiers. The Export-Import Bank was founded as an international institution, but CDB started domestically and gradually began to apply its experience in development finance to overseas projects. The third policy bank, the China Agricultural Development Bank, remains mostly domestically focused.

here, but an intended one—firms need to be incentivized to take gambles, and the lack of strict adherence to debt contracts again turns into something of an asset. This is similar to Chinese banks’ domestic use of subsidized credit to incentivize investment to meet growth targets, including in poorer, rural regions which might otherwise attract less investment. Second, the fact that no cash ever goes to the recipient government minimizes the risk of misappropriation (Bräutigam, 2009, pp. 293–94).²⁶

Chinese sources have historically been reluctant to discuss such delicate issues, but this is changing. Lin and Y. Wang (2017) write that “BRICs, particularly China, view policy conditionality as interfering with recipients’ sovereignty and tend to provide noncash financing to circumvent corruption, while traditional donors view policy conditionality as a means to ensure efficient use of aid” (89). The Bretton Woods institutions will route their activities through recipient Ministries of Finance and use policy conditions to make the sure the funds are not squandered. (Or, they simply do not lend to countries that do not comply with conditions, although Lin and Wang do not quite go here.) China, on the other hand, simply avoids the issue through “noncash financing.” “Noncash financing” could mean grants in kind (as opposed to the easier-to-steal cash variety), or it could mean using commodities for debt repayment (the topic of the next section). However, it could also mean using a tied aid scheme such that Chinese government funds never actually touch local bank accounts. This is not technically a “noncash arrangement,”—if anything, it is more like the recipient government is buying a construction project on a cash installment plan—but it does avoid the embezzlement risks of cash disbursements to local governments.

Of course, avoiding risk is not a goal in and of itself; there has to be some underlying interest which justifies the risk. Lin and Y. Wang (2017) continue with a long but informative

²⁶See also Kobayashi (2008) and Bräutigam (2011) for details on how tied loans are implemented.

passage on tied aid:

The principle of ‘untying aid’ expressed by the OECD Development Assistance Committee (DAC) does not make economic sense because it separates aid from trade, isolating aid from market principles, from comparative advantages, and thus from mutual benefit. It also discourages the private sector’s participation in development financing. Aid in the OECD definition becomes ‘unilateral alms’ after untying aid from trade. By definition, this concept of aid gives the aid donors a moral high ground as if aid is purely altruistic, placing developing countries on the receiving end—an unequal and passive position without ownership. In contrast, African commentators have appreciated the Chinese approach of cooperation, one that has ‘engendered country ownership and self-reliance’ (Manji and Naidu 2009, p.7). (91-92)

This brings us back to the previously discussed rhetoric of “win-win” or “mutual gain.” A donor-recipient relationship is inherently vertical, and as a developing state, China would rather not position itself as somehow fundamentally different from other developing states.

Receiving only indirect mention in this text are China’s own interests. China’s public opinion constraints require that some economic benefit flow back to China, lest the optics of a poor state giving away money prove too taxing on Chinese citizens’ views of their government. Part of the point of China’s economic push outwards is to maintain demand for its formidable construction sector after its home market is increasingly saturated. Issuing bank credit to its firms to do business overseas is certainly one way to accomplish that goal. Lin and Wang view the promotion of Chinese industry as part of a natural relationship of comparative advantage between the Chinese industrial powerhouse and developing countries rich in commodities and/or cheap labor. At first glance, the idea that untying aid contracts will do away with this comparative advantage does not seem to hold much water. Say, for example, that a resource-rich country is hoping to overhaul its main port in order to export more commodities, many of which will be sold to China. Holding a public auction for

the contract would clearly not be “isolating aid from market principles”; a traditional free marketer would be more likely to advocate an open contest to let the best firm win. After all, no matter who builds the port, the same types of trade will flow through it, right? A German-built port could just as easily ship goods to Shenzhen as a Chinese-built one.

There is actually one argument to the contrary. Because policy bank regulations require a majority of project value to go to Chinese firms, they frequently fund turnkey projects, or projects which are assembled and ready to operate by a single firm or well-coordinated consortium. Bräutigam (2011) suggests that tied turnkey projects of this nature might be more appropriate in Africa, where local governments often lack the capacity to manage large or high-technology engineering contracts without assistance from a firm with significant resources and technical know-how. Official Chinese sources make the same point. The 2011 *Foreign Aid White Paper* even makes the case that it might be better for Chinese firms to take an active role in managing projects post-construction, stating:

To consolidate the achievements of existing productive projects, China conducted multi-form technical and managerial cooperation with recipient countries, such as managing aid projects on behalf of recipient countries, lease management and joint ventures. After adopting the aforesaid cooperation models, some already-completed productive projects accomplished more than traditional technical co-operation in improving enterprise management and production level. Through adjustment and consolidation, China’s foreign aid embarked on a development road which suits better to China’s actual conditions and the needs of recipient countries. (State Council of the People’s Republic of China [中华人民共和国国务院], 2011)

It is always possible to read too much into linguistic differences, but the Chinese translation of the English “turnkey” is *chengtao* (成套), roughly translating to a “complete set.” By providing “complete” or “package deals,” China addresses shortfalls in implementation capacity in places with the world’s direst needs. This could be construed as a manifestation

of China's comparative advantage in infrastructure construction and industrial upgrading. Cheng Cheng [程诚] (2018) argues that China's recent experience with industrialization puts it in a better position to provide this type of advice than developed countries which have long since refocused on services and allowed their infrastructure and industrial know-how to atrophy (104-105).

Tied loans can also play a role in building geostrategic transportation routes and securing access to natural resources. Some loans could go to geostrategic transportation projects or to commodity production. Others could facilitate the export of commodities. Railroads and highways to mining sites, for example, are numerous among listings of Chinese projects. The data on this topic is still too weak to support more than case study evidence, but cases abound. Since 2009, for example, China has been in negotiations to overhaul Argentina's national cargo rail system. Negotiations have moved extraordinarily slowly, and to this date the only real work completed has been in Argentina's northern regions, which conveniently happens to be a major source of soybeans bound for Chinese animal feed troughs (Ellis, 2014, pp. 67–68; Rogers, 2014; Wingo, 2014). As will be discussed in the Peru case study, PetroChina is currently involved in a dispute with Peru over the environmental impact of a gas pipeline from an inland production site to the coast. A much more complex story could be told about a planned series of pipelines, highways, and railways connecting Congolese minerals and Ugandan oil to the Kenyan and Tanzanian coasts.

Tied loans can avoid recipient corruption, facilitate the monitoring of misdeeds by Chinese firms, and promote knowledge transfer to recipient countries, all of which are more important in developing countries with weak state capacity and governance. They can also promote China's export interests as well as (in some cases) resource security and access to strategic assets. This raises the question: if tied loans have these benefits, then why not

use them all the time? The answer is that tied loans do come with costs, especially regarding relations with the recipient country. China may not use policy conditions in the Bretton Woods sense of the term, but this is not to say that there no strings attached. Indeed, Mattlin and Nojonen (2015) list the tying of financing packages as a “condition” of Chinese development finance, in the “policy conditionality” sense of the term. They also argue that some of these loans set countries on a path to purchase from Chinese firms for decades, as in the case of a power plant for which the only available replacement parts are manufactured in China.²⁷ All else equal, most governments would not like to be told what to do. This holds for international financial institutions telling them how to organize their budget, and it holds for a foreign bank telling them that they have to buy from a specific firm for decades. China can simply sidestep this issue by allowing its construction contractors to find external financing wherever possible, or by using equity investment. Some of these diplomatic costs to debt can counteract the benefits to bilateral relations of Chinese-built projects. For this reason, I predict no consistent correlation between debt and diplomatic motives, as opposed to a positive correlation for more concessional financial arrangements.

To make these diplomatic costs worthwhile, the Chinese government will concentrate finite (if ample) bank lending resources in countries which present high corruption risks *and* are important for other reasons, namely geostrategic interests and/or resource security. Better-governed countries can draw Chinese contractors and/or equity investors without as much state encouragement. Because these countries have better access to international capital, they will also be in a position to decline tied loan deals and in many instances have procurement rules making tied packages more difficult to implement. The effects of geostrategic significance and commercial interests on debt are thus contingent on local governance qual-

²⁷Yun Sun (2017b) makes a similar point regarding railroad projects built to Chinese specifications.

ity.

This interactive effect takes place against the context of a positive overall relationship between commercial interests and loans and an indeterminate relationship between geostrategic interests and loans. Loans can be a positive for geostrategic significance by building transportation corridors but a negative for bilateral relations, at least relative to equity or freelance contracting. So, I do not make any prediction as to the overall correlation between debt and geostrategic interests before including the interactive effect. However, commercial interests in construction-sector exports are embedded in loan contracts, and some projects also have value to resource security, implying a positive correlation between debt and commercial interests.

The observable implications of the theory for interest-bearing debt are summarized as follows.

Table 3.4: Observable Implications for Interest-Bearing Loans (Cash-Based)

<i>Hypothesis</i>	<i>Independent Variable</i>	<i>Predicted Correlation</i>
H1A	Territorial claims (recipient is disputant)	-
H3B	Geostrategic interests * recipient governance quality	-
H4A	Commercial interests	+
H4B	Commercial interests * recipient governance quality	-

Legend: “--” = most negative; “-” = negative; “+” = positive; “++” = most positive

3.3.5 Resource-Backed Loans

Few of China’s arrangements have drawn more attention than resource-backed loans. In English, they have variously been called resource-backed loans, commodity-backed loans,²⁸ resource financed infrastructure,²⁹ and the “Angola mode”; in Chinese, 资源换贷款 (“resources

²⁸Bräutigam and K. P. Gallagher (2014).

²⁹Halland et al. (2014).

for loans”), 贷款换资源(“loans for resources”), 资源换基建(“loans for infrastructure”), and 安哥拉模式(“the Angola mode”).³⁰ This work will refer to them as “resource-backed loans” (RBLs), but readers should be aware of the other names. This section elaborates how RBLs work, their benefits to governance risk management and commercial motives, and their shortcomings. It ends with a table of theoretical predictions.

Resource-backed loans are the same as tied loans, but with an extra risk management mechanism making use of recipient country resource wealth. They can be repaid in commodities, repaid in export proceeds of commodities routed through an escrow account, or can be collateralized with commodities (e.g., Zimbabwe once used a diamond mine as collateral for a loan).³¹ These serve a very specific purpose. As one prominent Chinese specialist put it, “It’s a special type of business... it only applies to certain countries”.³² Namely, resource collateralization serves as additional insurance in countries with high corruption risk: governments with histories of questionable financial management do not even have to be counted upon to have money in the coffers to repay the loan (Sanderson and Forsythe, 2013).³³ As in the case of regular cash-based tied loans, China’s disbursements go directly to Chinese contractors and circumvent local government bank accounts. The difference is that repayment may also be in noncash goods or collateralized with them. Some have labeled it a “barter deal” trading resources for infrastructure, and while this is an oversimplification of a multiparty deal with cash involved, one can understand where they are coming from (Jansson, 2013). For this reason, Cheng Cheng [程诚] (2018) writes that

³⁰So called because these types of deals came to prominence in the 2000s during the rush to Angola’s oilfields following the end of its civil war, although they had been used previously for decades. See Bräutigam (2009).

³¹For more details, see Bräutigam and K. P. Gallagher (2014) and Halland et al. (2014).

³²Interview, Beijing, September 2018.

³³The crisis in Venezuela illustrates that it is actually possible for a government to be in such dire straits as to default on a resource-backed loan, but the likelihood is lower, anyway. This topic will be discussed in the conclusion chapter.

“China has adopted a model of ‘resources-for-infrastructure’ financing in its African infrastructure cooperation projects in order to better control the risks of embezzlement and misappropriation” (105).³⁴

The pros and cons of this model are similar to those of cash-based tied loans but amplified by the extra risk management mechanisms being put into place. The pros, again, include even greater avoidance of governance risk as well as the aforementioned benefits of “package deals” for building management and maintenance capacity in countries without it. If cash-based tied loans are meant to generate their own repayment capacity through infrastructure construction and industrial upgrading, then resource-backed tied loans might make the process even easier by drawing on a readily available (if untapped) source of repayment. In a 2007 IMF report, Jian-Ye Wang said as much, stating that:

To finance projects that are expected to generate revenue or export earnings, through state financial institutions and enterprises China provides trade credit and commercial loans, often with repayment linked to the output of the projects (e.g., oil). This approach thus aligns debt financing with evolving repayment capacity. (J.-Y. Wang, 2007, p. 21)

Wang’s words are to be taken seriously: he later became the Chief Economist of the Export-Import Bank of China. Sanderson and Forsythe (2013) explicitly connect this strategy to China’s own industrial development history. Local Chinese officials used the value of land to repay loans, knowing that the land would appreciate precisely because of the infrastructure and industrial projects being funded by the loans, many of which came from the China Development Bank. Now, CDB—along with its exclusively foreign-oriented sibling, Exim—is using the same strategy, only with overseas commodities taking the place of domestic land. Lin and Y. Wang (2016) make a related point, arguing that this modal-

³⁴Translation by author. Original Chinese: “相比之下，中国在非洲的基础设施建设合作项目中采取了‘资源换基建’的融资设计，较好地控制了资金被贪污挪用的风险。”

ity allows countries to simultaneously build up natural resource sectors and infrastructure needs, both of which were being underserved by capital markets.

Low-return infrastructure projects being underserved by capital markets may be news to few, but the idea of an underserved commodity deposit might seem surprising. Energy and mining companies do not have a reputation for opting not to exploit economically recoverable deposits. This tells us something about the more precise usage of resource-backed loans: they are designed for resource-rich countries with institutions that are weak enough to scare off most others. Because Chinese firms are latecomers to the global commodity business, they are left with the markets that others have declined to enter (S. Chen, 2008).³⁵ Recipient country bargaining power also plays a role. “You have to understand,” one Chinese expert told me about the resource-backed loan model. “This depends on how they [the government] negotiate with the partners.” He elaborated that some countries like “South Africa. . . would not accept” such a model. The banks simply have to “adapt to new conditions.”³⁶ In other words, resource producers with better reputations for governance—on the African continent, South Africa is a prime example—are able to draw many sources of funding and will not accept a deal that places a mortgage tag on their commodity deposits. Banks are only able to impose such terms in countries with few other options, which also happen to be the countries where strict risk management measures are most necessary. China finds ways to serve its resource security needs in accordance with local circumstances.

Apart from managing risk, resource-backed loans are used for commercial motives. Particularly where resource security is concerned, this would seem to be too obvious to bother

³⁵This point was also brought up by three Chinese energy and development finance specialists in conversation (Beijing, September 2018).

³⁶Interview, Beijing, September 2018.

discussing, but it is actually somewhat controversial. Authors such as J. Jiang and Sinton (2011) and Moyo (2012) point out that Chinese commercial arrangements only result in direct commodity exports to China in countries with less shipping distance to cover; in other words, Angola's oil-backed loans have generated substantial exports to China, but PetroChina typically opts to ship Ecuador's and Venezuela's oil-backed loan production to markets within the Western Hemisphere. Even so, these loans can still contribute to resource security by increasing global supply, keeping prices lower, and allowing Chinese firms to gain experience on the ground and catch up with more established international firms.³⁷ Less often noticed is that while Chinese firms do not routinely export resources from faraway places to China, they could be asked to do so in the event of a global price spike. The same argument applies to the observation of Gholz, Awan, and Ronn (2017) that resource-backed loans do nothing to mitigate the risk of U.S. Navy interdiction at the Strait of Malacca. This is true, but history would indicate that oil shocks are much more likely to come from regional dynamics in the Middle East; resource-backed loans could serve to divert energy to China and stabilize domestic prices in the event of a Middle Eastern crisis, or during peacetime via simply expanding global production. They serve the portion of resource security that happens at the point of the production, not in transit; the transit phase is better served by Belt and Road-style infrastructure projects.³⁸

The resource-backed model is tailor-made for commodity-producing countries with poor governance, but its pitfalls prevent it from being used often outside this niche. It is not applicable to countries with few commodities³⁹ or to those in a position to bargain their way

³⁷See also Erica S. Downs (2011), Evans and Erica S. Downs (2006), Moyo (2012), and X. Tang (2014).

³⁸See also S. Chen (2011). This is not to mention the role of China's ongoing naval modernization in securing supply routes.

³⁹There are a few cases of countries using commodities other than hydrocarbons or metals for resource-backed loans. For example, Ghana has done so with cocoa beans, and Ukraine with wheat. However, these are the exceptions to a large majority using oil, gas, or metals as collateral.

to better terms. Then, when it is used, it is asking quite a bit of recipients and is unlikely to generate the same kind of warm feelings as deals with fewer strings attached. Resource-backed loans fall at one end of the old tradeoff between making diplomatic friends and protecting one's own interests—in this case, natural resource security and construction-sector export interests—against governance risk. Some Chinese experts make the opposite argument with respect to diplomatic interests. Lin and Y. Wang (2017) and Cheng Cheng [程诚] (2018, p. 105) emphasize the essentially horizontal nature of this deal; a simple trade of commodities for construction projects based on each side's obvious comparative advantage. It is not clear, however, why most resource-producing countries would look at this as less of an imposition than a deal which brings them the same infrastructural benefits while maintaining more flexibility in what they can do with their resource reserves. I maintain that resource-backed loans are in fact the most demanding of China's major tools.

The following table lists the observable implications of the theory for resource-backed loans. The reader should note that because resource-backed loans are an extreme case of regular (tied) loans, the expected correlations are stronger. These stronger expectations are denoted as dual positive or negative signs.

Table 3.5: Observable Implications for Resource-Backed Loans

<i>Hypothesis</i>	<i>Independent Variable</i>	<i>Predicted Correlation</i>
H1A	Territorial claims (recipient is disputant)	--
H1B	Territorial claims (recipient is not disputant)	--
H2	General diplomatic interests (recipient is disputant)	--
H3A	Geostrategic interests	--
H4A	Commercial interests	++
H4B	Commercial interests * recipient governance quality	--

Legend: "--" = most negative; "-" = negative; "+" = positive; "++" = most positive

3.3.6 Distressed Debt

The debt story does not end with loan disbursement. Most loans are paid back without much ado, but not all. In these cases, the lender faces a thorny decision. There are four basic options. First would be to forgive the loan; second, to restructure it, typically into a series of smaller payments over a longer timeframe and sometimes with new loans to repay the old; third, to enter into a “debt-equity” swap in which debt is canceled in exchange for an ownership stake in the project; and fourth, to decline to restructure the debt and withhold further lending until it is repaid.⁴⁰ In practice, these strategies may be combined in any given instance, but it is useful to first think about them in sequence. Debt forgiveness is clearly the most favorable of the three to borrowers. In some ways, debt forgiveness resembles grants in that it entails a unidirectional transfer of value, and as such it should be useful for currying favor toward diplomatic motives or to maintaining friendly relations with geostrategically important countries. This follows the findings of Alesina and Weder (2002), who find that from 1989-1997, OECD countries forgave more debt from countries important to their interests.⁴¹

Rescheduling is an intermediate measure. It could conceivably be a positive for lender diplomatic and geostrategic interests if the terms of rescheduling are well received by the borrower, or a negative if they are not.⁴² I make no specific predictions as to the sign of the coefficient of rescheduling, and this non-prediction puts rescheduling in a middle ground between debt forgiveness (laxer) and debt-equity swaps (stricter). While rescheduling may be part of a formal agreement, a country with weak rule of law such as China may also

⁴⁰This framework was derived from comments made by a Chinese energy expert (Beijing, September 2018).

⁴¹Of particular note: binary variables for Egypt and Mexico were very strong predictors of debt relief.

⁴²Chapter 8 will look at specifics of some rescheduling terms where available.

simply ignore the debt until the debtor is able to repay (Meidan, 2016, p. 10). One former senior World Bank official saw this ability to “roll with the punches” as a major asset for China’s operations in risky markets. The Bank, he said, operates in a framework of rule of law, and any unexpected hurdle that interferes with a project’s implementation means that contracts must be arduously renegotiated.⁴³ China, on the other hand, can quietly agree to put construction on hold and/or postpone debt repayments until the period of instability has passed. This is a *de facto* but not *de jure* form of debt rescheduling with deep roots in China’s own informal, debt-based political economy. This type of informal restructuring is typically hard to observe—neither China nor borrowers are apt to announce that the borrower is behind on payments—and will not be analyzed quantitatively, although it will make several appearances in qualitative analyses.

Debt-equity swaps are a step tougher than rescheduling and can be controversial. Pessimists in the media such as Abi-Habib (2018) and Pomfret (2018) argue that China is setting “debt traps,” planning to use excessive debt burdens to either browbeat countries into submission or to actually take possession of strategic assets. Hurley, Morris, and Portelance (2018) already find evidence of high debt distress from Chinese lending in the Belt and Road Initiative hubs of Djibouti, Laos, and Pakistan. In December 2017, a Chinese firm actually assumed management of the port it built at Hambantota after Sri Lanka fell behind on debt payments, and as of this writing, it has recently leaked out that similar terms were put in place in the event of a default by Kenya on a port project in Mombasa (Millward, 2018; Mwere, 2018). All of these countries are home to Belt and Road transportation projects; Djibouti is home to an actual Chinese naval base.

The repossession option seems harsh compared to forgiveness or rescheduling, but is actu-

⁴³Interview, Washington, DC, July 2018.

ally kinder to recipient interests than demanding repayment in full. Debt-equity swaps only become a real possibility for projects in distress, in which case asking the recipient to relinquish responsibility for the projects blurs the line between imposition and concession. The Chinese firm might not expect to do much better financially than the previous owners. Such a deal only happens if there are non-financial reasons to take possession of the property. In practice, this non-financial reason to date has been geostrategic and navigational concerns, with Indian Ocean ports playing a leading role in the “debt trap” drama. The logic behind trading debt for equity is similar to that behind making equity investments to begin with: assuming a degree of financial risk in exchange for gaining a long-term claim to something of value. Just as equity investments present a middle option between recipient-friendly grants and stringent loans, debt-equity swaps are an intermediate between debt write-offs and demanding repayment in full.

Finally, there is the option to hold out and demand repayment in full. The strictest of the four options, this will obviously strain relations with the recipient country but is best for Chinese commercial interests, especially the banks. Examples such as Venezuela suggest that the commercial interests embodied in resource-backed loans make debt forgiveness especially unlikely: China will be loath to give up future claims to important commodities (in Venezuela’s case, oil).

Table 3.6: Observable Implications for Distressed Debt Scenarios

<i>Hypothesis</i>	<i>Independent Variable</i>	<i>Predicted Correlation:</i>			
		<i>Forgiveness</i>	<i>Rescheduling</i>	<i>Debt-Equity Swap</i>	<i>Hold Out for Repayment</i>
H1A	Territorial claims (recipient is disputant)	+		-	--
H1B	Territorial claims (recipient is not disputant)	+		-	--
H2	General diplomatic interests	+		-	--
H3A	Geostrategic interests	+		+	-
H4A	Commercial interests	--		-	+

Legend: “...” = most negative; “-” = negative; “+” = positive; “++” = most positive

3.3.7 Summary Statistics

Table 3.7: Theoretical Predictions

<i>Hypothesis</i>	<i>Independent Variable</i>	Contracting (freelance)	Small-Scale		Large-Scale		
			Grants	ZIL	Equity	Debt (cash)	Debt (resource- backed)
H1A	Territorial disputes: disputants	+	-	--	-	-	--
H1B	Territorial disputes: non-disputants		+	-	+		--
H2	Diplomatic	+	+	-	+		--
H3A	Geostrategic	+	+	-	+		--
H3B	Geostrategic * governance					-	
H4A	Commercial				+	+	+
H4B	Commercial * governance					-	--

Legend: "--" = most negative; "-" = negative; "+" = positive; "++" = most positive

Table 3.7 lists theoretical predictions for all initial financing mechanisms, excluding the special cases of distressed debt listed in Table 3.6. Before proceeding to more in-depth looks at each financing tool in the coming chapters, I introduce some basic summary statistics to assess the hypotheses. Table 3.8 presents the mean annual⁴⁴ totals and mean project values for different financing methods using data from American Enterprise Institute (2019) (equity) and Dreher, Fuchs, Parks, et al. (2018) (all others).⁴⁵

Table 3.8: Summary Statistics, 2005-2014

	Grants	Zero-Interest Loans	Equity	Debt (Cash)	Debt (Resource-Backed)
Mean Annual Total (mil. 2014 USD)	1,141.3	298.2	32,211.7	34,969.2	16,561.6
Mean Commitment Value (mil. 2014 USD)	9.7	32.1	N/A	376.9	1,328.7

Includes all years for which data is available for all categories. Because the American Enterprise Institute (2019) equity dataset includes only items over \$100M, it cannot be used to estimate the size of a typical investment.

Financing mechanisms are here arranged in order of increasing strictness from left to right. Stricter measures are usually used for larger transactions. This supports the prediction of Hypothesis 4A that commercial interests will lead to tougher terms: the more money is involved, the tougher China gets. Resource-backed deals in particular tend to be very large; many are negotiated as multi-billion dollar lines of credit to include a series of projects over the course of years. This allows China to lock down an important commercial interest in

⁴⁴For years 2005-2014, which are available for all datasets.

⁴⁵The division between cash and resource-backed loans is based on the upper-bound estimate of resource collateralization as calculated by the author. This estimate was found to yield more conservative statistical results than the lower-bound estimate and so is used consistently throughout this chapter. Details on the methodology behind these estimates are included in the “Resource-Backed Loan” section of this chapter.

resource security in one fell swoop, rather than relying on an *ad hoc* series of smaller deals as is often done for conventional cash-based debt.

Table 3.8 presents very strong evidence in favor of the construction-sector export and financial profitability components of China's commercial interests, but evidence in favor of the resource security component is limited to resource-backed loans. Unfortunately, manufactured export and financial interests are very difficult to test statistically. Because China's official finance is tied to the use of Chinese goods and services, China's interest in a deal is perfectly proportional to the size of the deal itself. In a regression, this would mean that the independent and dependent variables are identical. Resource security, however, can be statistically tested as an independent variable against various development finance dependent variables. In the quantitative analysis, I rely more heavily on resource security as a measure of commercial interests before returning to include export interests in the case studies.

3.4 Conclusion

This chapter has outlined a basic of theory of which national interests are likely to lead to stricter or laxer forms of financing, and which forms of financing are considered laxer or stricter. At the core of this theory is a tradeoff between using tougher financing terms to safeguard national interests or laxer ones to win friends. This basic tradeoff is similar to that at the heart of the existing literature on Bretton Woods policy conditionality but is manifested in a different series of policy instruments. These policy instruments have roots in a statist political economy with weak rule of law in which repayment of state-owned bank loans is flexible, especially for favored projects or well-connected borrowers. Chinese firms

undertaking projects deemed to be in the national interest are likely to receive this kind of favorable credit; this holds for projects both domestic and international. If deals go poorly, they may also be supported by state-owned banks in ways that fall outside the realm of regularized debt contracts.

This theory will be tested by a series of comparisons controlling for type of project and government organizations. In many instances, firms adequately promote China's interests without much direct encouragement by the state. These typically subsidized freelancers can serve as effective ambassadors for China without the baggage that comes with Chinese cross-border bank lending or even equity. Firms wishing to do business in countries that recognize Taiwan will also use this mode of entry for the simple reason that the government in Beijing out of principle will not directly back them. However, where firms do not meet the government's policy goals by themselves, state capital will be more directly involved. For smaller-scale social sector projects, this typically means grants (laxer) or zero-interest loans (stricter). For larger projects, often in the extractive sectors or infrastructure, this takes place along a continuum of, in order from laxest to strictest: equity investments, tied loans backed only by cash, and tied loans backed by resources. In the event of debt repayment difficulties, a secondary continuum of options emerges. In the order of laxest to strictest, these are debt forgiveness, debt restructuring, debt-equity swaps, and demanding repayment in full. Table 3.7 on the next page summarizes the predicted observable implications included in previous tables of this chapter.

The following chapters used a mixed-methods framework to analyze these different types of financing. Each begins with quantitative analysis before homing in on individual cases. The chapters are arranged such that less complex cases with fewer relevant Chinese interests come first, with later chapters progressively adding Chinese interests and types of

financing. Chapter 4 thus begins with the simplest tools, grants and zero-interest loans for smaller projects. It does so by focusing on African neighbors Burundi and Rwanda. Both are low-income states where aid is especially salient but have substantially different political risk profiles. China has few geostrategic or resource interests in either country, meaning they are useful starting points before adding variables to the equation. Chapter 5 continues with the Burundian and Rwandan cases but pivots toward larger projects carried out via equity, debt, or freelance contracting arrangements. This chapter adds complexity with respect to financing methods but shares with its predecessor a simpler set of Chinese interests. This changes in Chapter 6, which brings in resource security in oil-rich Ecuador and copper-rich Peru, which (again) exhibit varying levels of political risk. Here, I introduce resource-backed loans as the strictest and most complex of China's financing tools. Chapter 7 rounds out the list of independent variables by bringing in geostrategic interests. Chapter 7's case studies are Pakistan and Kazakhstan. In Kazakhstan, oil and other commercial interests must be weighed against Central Asia's importance to border security and Belt and Road transportation routes; in Pakistan, security and transportation concerns far outpace commercial interests. Lastly, Chapter 8 systematically analyzes all cases of Chinese debt renegotiation to look at China's secondary menu of options in the event that borrowers encounter difficulties repaying loans.

Chapter 4

Diplomacy and Basic Commercial Interests: Smaller Projects

The previous chapter predicted that the Chinese government would take into account geostrategic interests and resource security in its development finance policy, but for many of the world's countries, neither is a major factor. In these states, China is balancing two more universal interests: diplomatic outreach and commercial goals. China hopes to persuade as many states as possible of the virtues of its position on territorial disputes (especially Taiwan) and a host of other issues.¹ At the same time, all states could be markets for China's industrial and construction-sector offshoring, albeit some much more than others. The theory predicts that diplomacy requires treatment with kid gloves: the more concessional the terms the better. Promoting Chinese industry, on the other hand, may be easier accomplished via terms and conditions such as tied procurement. This chapter and the following one analyze this basic trade-off before subsequent chapters progress to more complex cases

¹Recently, Xinjiang is an important example.

in which resource security (Chapter 6) and geostrategic interests (Chapter 7) enter the picture. This chapter focuses on smaller projects funded by grants and zero-interest loans. These were hypothesized to be more pertinent for diplomacy, but there are limits to what they can achieve in terms of scale, and most go to projects in “social sectors” like health and education. Larger projects such as major infrastructure works will require interest-bearing debt and/or equity financing to be sustainable; the next chapter (Chapter 5) covers these. Apart from the fact that they cover similar types of projects at similar scales, grants and zero-interest loans are also comparable to one another because, as discussed in Chapter 3, they are both handled by Chinese government agencies led by the Ministry of Commerce.² Chapter 3 further predicted that they are substitutes for one another, with zero-interest loans serving as a less diplomatically friendly but more commercially sustainable option short of reducing or withholding aid.

This chapter and the following one approach small and large projects using a common mixed-methods framework. Statistical analysis will establish patterns across the developing world writ large. While more in-depth analysis of geostrategic and resource-related variables will wait until later chapters, I do discuss them in the quantitative analysis here simply because excluding them from the models would introduce bias. Then, for more depth, I include a paired comparison of the cases of Burundi and Rwanda (Tarrow, 2010). Both are far from any of China’s primary geostrategic concerns and have few significant natural resources, but they do have their own voices in international diplomacy and are both markets for Chinese construction firms. While comparable across these and many other dimensions—size, level of economic development, etc.—Burundi and Rwanda differ

²The Ministries of Foreign Affairs and Finance are also involved. The new China International Development Cooperation Agency (CIDCA) is now coordinating these activities, but did not yet exist for the time period being tested.

in one critical way: governance. Despite its tragic history—or arguably because of it—Rwanda has developed an overall more stable legal environment and reliable civil service. Burundi, on the other hand, has remained mired in domestic strife. Comparison of these two neighbors shows us how China approaches the basic task of diplomatic outreach in different governance environments. China’s mixes of grants and zero-interest loans to the two countries are actually not all that different, but the results have diverged substantially. This is mostly because of the presence or absence of other major aid donors, many of which have increased their commitments to Rwanda but have only tepidly remained in Burundi since an outbreak of political violence there in 2015. Especially since 2015, Burundi has supported China more often both in United Nations General Assembly (UNGA) voting and on specific issues involving Chinese policy in the South China Sea, Xinjiang, and Sri Lanka.

I proceed in three parts. First is statistical analysis; second are the Burundian and Rwandan cases. Third, I conclude with implications of this chapter’s findings for the theory.

4.1 Quantitative Analysis

4.1.1 Data and Methods

Statistical analysis in this dissertation is based on an author-compiled country-year panel dataset including 157 countries between 2000 and 2018. This sample is restricted in terms of both space and time. In space, I exclude all countries which at any point since 2000 have registered a nominal GDP per capita of over US \$25,000 as per the World Bank’s *World Development Indicators*. In practice, Chinese engagement in the developed countries above this threshold is qualitatively different, seeking safer returns on capital earned within

China and sometimes access to technology (Kratz, A. Feng, and Wright, 2019). Many countries just below this threshold—e.g., Greece or Portugal—have received major loan packages akin to those which are common in more unambiguously “developing” countries. Despite falling just below the threshold, Taiwan was excluded due to its special political significance.

In time, the sample excludes years before 2000. Chinese overseas finance prior to 2000 existed only at very low levels and due to budget constraints was qualitatively different from the type of large infrastructure deals seen today (Dreher and Fuchs, 2015). With the exception of Chinese government sources, none of the data sources used in this dissertation contain figures from before 2000.

China’s development finance programs are not transparent, and data quality is a perennial issue. To ameliorate this problem, I use as many different data sources as possible. Findings that are confirmed by multiple data sources can be considered more reliable; others can be taken with a grain of salt or ignored. I introduce data sources for regression dependent variables (types of Chinese development finance) as they are used in subsequent sections analyzing the relevant modalities of financing.

Data for all regression dependent variables is adjusted for inflation and currency movements according to the formula $\frac{Inflation}{\Delta Exchange rate}$ using data on inflation and RMB-USD exchange rates from the World Bank (2018c). Dreher, Fuchs, Parks, et al. (2018) use this methodology for their AidData dataset, and I apply it to other datasets to maximize consistency across models.

This chapter focuses on two countries in which only diplomatic and commercial export interests are present, but the nature of statistical analysis requires that geostrategic and

commodity import interests remain in the models regardless. To minimize redundancy across chapters, I quantitatively analyze the results for these variables alongside the results tables in this chapter but include more detailed models alongside case studies in Chapters 6 and 7 on resource and geostrategic interests, respectively.³

The following subsection focuses on data for this dissertation's independent variables before the subsequent one turns to specific data and methods for small-scale concessional flows.

4.1.1.1 Independent Variables

Data for independent variables is more widely available than that for dependent variables. I here introduce data for independent variables and controls for each hypothesis, followed by general controls. This introduction will apply to all chapters in the dissertation, since the independent variables used are constant throughout.

Hypothesis 1 on the role of China's territorial claims is tested using three binary variables:

- Recipient government recognition of Taiwan. Coded as 1 if the recipient government has formal diplomatic relations with Taiwan and 0 otherwise. Observations for years in which countries switch recognition were coded as 0 due to the bursts in both mainland and Taiwanese economic outreach that often accompany these transitional periods. Data taken from Dreher, Fuchs, Parks, et al. (2018) and Ministry of Foreign Affairs, Republic of China (Taiwan) (2019).
- ASEAN member whose South China Sea claims overlap China's, binary.

³Chapter 6 also adds another regression dependent variable, resource-backed loans.

- ASEAN member whose South China Sea claims do not overlap China's, binary. This was included both as a control to compare to disputant countries and because these non-disputant ASEAN members play an important role in China's regional policy. China uses economic outreach to non-claimant Cambodia and Laos, for example, to prevent solidarity with the disputant countries.

In keeping with previous studies, general diplomatic interests per **Hypothesis 2** are measured using United Nations General Assembly (UNGA) voting alignment per Voeten, Strezhnev, and Bailey (2017). This is the percentage of UNGA votes in which a country voted the same way as China, with abstentions counting as half-agreements. This variable is lagged by one year due to the fact that many important General Assembly votes take place toward the end of the calendar year.⁴

I include three measures of geostrategic interests per **Hypothesis 3** as well as one control. These are:

- Shares land border with China (binary) as a proxy for border security concerns. Data from CEPII (2017).
- Location at an important maritime chokepoint (binary). In order of least to greatest distance from China, these are Russia (the Bering Strait); Indonesia and Malaysia (the Strait of Malacca); Iran and Oman (the Strait of Hormuz); Djibouti, Eritrea, and Yemen (the Bab-al-Mandeb); Egypt (the Suez Canal); Turkey (the Bosphorus and Dardanelles); Morocco (the Strait of Gibraltar); and Panama (the Panama Canal).⁵
- Location along a Belt and Road corridor or Maritime Silk Road route as per the

⁴I am thankful to an anonymous reviewer for this point.

⁵High-income states not included in the sample set include the United States (the Bering Strait); Singapore (the Strait of Malacca); the United Arab Emirates (the Strait of Hormuz); and Spain and the United Kingdom (the Strait of Gibraltar).

official descriptions at Belt and Road Portal [中国一带一路网] (2018) (binary).⁶

- Distance from China in thousands of kilometers, weighted for population density as per the United States International Trade Commission's (USITC) *Dynamic Gravity Dataset* (Gurevich and Herman, 2018). This is included as a control for the fact that bordering and BRI countries tend to be closer to China, meaning that traditional gravity models would predict more bilateral commerce regardless of geostrategic factors.

These geostrategic variables are not independent of one another. Overland connectivity requires cooperation with neighboring countries, and ten out of the fourteen bordering countries in the sample set are also along BRI routes. Similarly, seven of twelve countries at maritime chokepoints are also along BRI routes. The Belt and Road Initiative was designed such that location at China's border or at a maritime chokepoint is causally prior to BRI designation. So, I test the variables separately, with the border and chokepoint variables in one set of regressions and the BRI binary in another. (Distance is included as a control in both cases.) These two sets of tests assess somewhat different pathways linking geostrategic interests to development finance. The geographic variables measure inherent importance to Chinese interests regardless of state policy, while the BRI variable measures which of these countries have been prioritized for infrastructural development. In the first set of countries, China's incentives are to be as concessional as possible (e.g., grants) to manage relations with the country; in the second, this need is counteracted by a desire to

⁶The nature of sea trade is such that inclusion or exclusion of a given port from a Maritime Silk Road route can be more debatable than for fixed road or rail routes. I include only countries listed on the official Belt and Road map as a better reflection of Beijing's thinking, but readers should be aware that in common discussions in the media, other countries may be casually referred to as along the Maritime Silk Road. The map used is also included in Chapter 2 as Figure 2.1. The map was published in 2016 and was current as of June 2018. Future alterations are possible, although these would be less reflective of Chinese strategy during the time period being tested in this dissertation.

use less concessional means (equity and debt) to build new projects, including when firms might not want to do so of their own volition.

Trade flows act as a proxy for commercial interests (**Hypothesis 4**). Specifically:

- Commodity exports to China measure resource security motives. Perhaps because of the more direct connection to Chinese interests, these were found to be better predictors of Chinese activity than data on domestic production or resource rents. Data in thousands of U.S. dollars per United Nations Conference on Trade and Development (2018).⁷ This variable is lagged by one year to avoid endogeneity where investments or loans might generate exports to China.⁸ I also transform this variable according to the formula $\ln(x + 1)$ (henceforth the “log plus one” transformation). This formula corrects for positive skew by approximating the natural logarithmic function but avoids the loss of observations with an original value of zero.
- Total imports from China (United Nations Conference on Trade and Development, 2018) operationalize China’s interest in generating business for its firms. It should be cautioned that the terms of many Chinese deals guarantee that these interests are accommodated and that any null results mean that these deals did not make a statistically discernible difference in the larger scheme of global trade. Because of the essentially tautological nature of comparing funding to purchase Chinese goods to actual purchase of those goods, I do not rely heavily on this variable to demonstrate Chinese commercial interests and instead include it more as a control for commodity exports. Following the treatment of commodity exports, total imports from China are lagged by one year and transformed according to the formula $\ln(x + 1)$.

⁷I use UNCTAD’s categorization of “primary commodities, precious stones, and non-monetary gold (SITC 0 + 1 + 2 + 3 + 4 + 68 + 667 + 971).”

⁸Granted, from China’s perspective, this “reverse causality” might be the point.

I include one primary measure of governance quality (**Hypotheses 3B and 4B**) as well as one control:

- The primary measure of governance quality is the Worldwide Governance Indicators' Rule of Law index (Kaufmann and Kraay, 2018). The Worldwide Governance Indicators also include measures of potentially relevant concepts such as control of corruption and regulatory quality, but these are less immediately indicative of this dissertation's conceptualization of governance risk as the risk of arbitrary encroachment on previous agreements by the state.⁹ This variable is lagged by one year to avoid endogeneity related to the findings of Isaksson and Kotsadam (2018) that Chinese aid may increase local (if not national) corruption in Africa, implying a potential effect on overall governance patterns.
- Polity score (21-point scale) per M. Marshall, Gurr, and Jagers (2018). Governance quality is correlated with regime type, and China could hypothetically approach autocracies and democracies differently. Lagged by one year to match treatment of Rule of Law.

I include several general control variables as follows:

- Central government debt-to-GDP ratio per Abbas et al. (2011), as updated by Mbaye, Moreno Badia, and Chae (2018). Over-indebtedness would be another source of risk to lenders and investors and could be related to variables of interest including governance quality and commodity exports. Lagged by one year to avoid endogeneity with Chinese loans.

⁹I have also run tests using Control of Corruption, and the results were essentially the same. Most governance measures are highly co-correlated with one another, and which one is used matters more in theory than in practice. Results for Control of Corruption and other measures are available upon request.

- Gross domestic product per capita (current U.S. dollars) (World Bank, [2018c](#)). This is an important determinant of both business strategy which also happens to be correlated with any number of variables of interest. Logged to account for positive skew.
- Total population, a traditional predictor of virtually any type of financial flow. Logged to account for positive skew.
- English as a country's primary language (binary), per CEPII ([2017](#)). Dreher, Fuchs, Parks, et al. ([2018](#)) use this variable because the web-scraping methodology used to compile their dataset may be more effective at identifying projects in English-speaking countries.
- A time trend binomial consisting of two variables. The first is a linear series related to the year; e.g., the year 2000 (the earliest in the dataset) is coded as 1, 2001 as 2, and so on. The second variable is the square of the first. This accounts for a quadratic time trend in which Chinese financial outflows rise rapidly during the 2000s but level in the 2010s following the global financial crisis.

Many of these independent variables are either completely time-invariant (as for the geographic indicators) or vary only slowly over time (e.g., governance quality). So, clustering is an obvious issue. I thus include robust clustered standard errors in all models.

4.1.1.2 Grants and Zero-Interest Loans

Data on grants are taken from the AidData project at the College of William & Mary (Dreher, Fuchs, Parks, et al., [2018](#)). Because many grants are made in-kind, there is not always a reliable estimate for their financial value. To deal with this issue, I include two models of grants: one of their dollar value, and another of the count of grants in a given

country-year. The first model (Column 1) better takes into account differentiation in the size of grants, while the second (Column 2) is more thorough in its inclusion of in-kind grants. Due to the fact that many country-years have a value of zero, the dollar value of grants is regressed using a Tobit model left-censored at zero. I use a Poisson model for the grant count variable.

Data on zero-interest loans is available from two sources: AidData (Dreher, Fuchs, Parks, et al., 2018) and the China Africa Research Initiative at Johns Hopkins University's School of Advanced International Studies (SAIS) (Atkins et al., 2017). The AidData figures are more comprehensive in that they include web-scraped figures for all developing countries, but as of this writing are only available for the years 2000-2014. The SAIS-CARI figures are limited to Africa and thus cannot be used to test several Eurasia-specific variables, but include a greater number of years (2000-2017) and are subject to greater verification. I include models of both in Columns 3 and 4.

To better compare grants and zero-interest loans, I include in Column 5 a logistic model of the dependent variable $\frac{Grants}{Grants+ZIL}$. Data on both are taken from AidData to maximize comparability. This model directly reflects the Chinese Ministry of Commerce's decision between grants and zero-interest loans, but at the cost of losing many country-year observations for which neither grants nor zero-interest loans were extended.

As for all statistical tests in this dissertation, I include two tables: one for the geography-based geostrategic variables (the border and chokepoint binaries), and another for the Belt and Road binary. Because location along a BRI corridor was not found to be a predictor of aid flows, the BRI specification is located in this chapter's Appendix (Section 4.4). Only the geography-based specifications are included in the text of the chapter proper.

All dollar value dependent variables in the following table are transformed according to the formula $\ln(x + 1)$, with the exception of the fractional logistic model in Column 5.

4.1.2 Results and Analysis

Table 4.1: Grants and Zero-Interest Loans, Commitment Basis, Borders and Chokepoints Specification

	(1) Tobit: Grants (AD)	(2) Poisson: Grants (AD)	(3) Tobit: ZIL (AD)	(4) Tobit: ZIL (SAIS)	(5) Logit: % Grants (AD)
Taiwan recognition (binary)	-5.058*** (-7.50)	-3.476*** (-4.24)	-23.31*** (-20.79)	-18.47*** (-14.74)	13.62*** (15.35)
ASEAN member, SCS disputant (binary)	-1.349*** (-2.58)	-1.008*** (-2.84)	-22.30*** (-11.07)		14.15*** (15.61)
ASEAN member, SCS non-disputant (binary)	0.548 (1.20)	0.595** (2.09)	-0.0921 (-0.04)		0.862 (0.99)
UNGA voting similarity with China (one-year lag)	1.895* (1.95)	1.141* (1.81)	3.063 (0.85)	-1.731 (-0.46)	-0.650 (-0.40)
Border with China (binary)	-0.231 (-0.46)	-0.0969 (-0.30)	-7.129*** (-3.39)		2.532*** (2.68)
Chokepoint (binary)	-0.155 (-0.39)	-0.326 (-1.61)	-4.479*** (-3.79)	-3.343*** (-2.96)	1.680** (2.15)
Distance from China (pop.- weighted; thousands <i>km</i>)	-0.000683 (-0.02)	-0.0129 (-0.50)	-0.0701 (-0.44)	-0.394 (-1.60)	0.0263 (0.38)
Commodity exports to China (log; one-year lag)	0.0735 (1.36)	0.0298 (0.90)	0.424** (2.42)	0.211 (1.26)	-0.118 (-1.49)
Total imports from China (log; one-year lag)	0.667*** (2.88)	0.140 (1.10)	0.358 (0.41)	-0.318 (-0.44)	0.0497 (0.13)
Rule of Law (WGI; one-year lag)	-0.255 (-1.16)	-0.155 (-1.23)	1.674** (2.04)	0.814 (1.21)	-0.763* (-1.83)
Polity score (one-year lag)	0.0101 (0.42)	0.00960 (0.72)	-0.124* (-1.71)	-0.0421 (-0.65)	0.0557* (1.69)
Debt-to-GDP ratio (log; one-year lag)	-0.0397 (-0.24)	-0.0329 (-0.35)	0.236 (0.48)	0.288 (0.70)	0.00286 (0.01)
GDP per capita (log)	-1.676*** (-6.74)	-0.591*** (-4.32)	-2.442** (-2.41)	-0.210 (-0.30)	0.247 (0.57)
Population (log)	-0.703***	-0.142	-0.674	-0.481	0.0427

Continued on next page

Table 4.1: Grants and Zero-Interest Loans, Commitment Basis, Borders and Chokepoints Specification

	(1)	(2)	(3)	(4)	(5)
	Tobit: Grants (AD)	Poisson: Grants (AD)	Tobit: ZIL (AD)	Tobit: ZIL (SAIS)	Logit: % Grants (AD)
	(-3.47)	(-1.23)	(-0.89)	(-0.78)	(0.13)
English language (binary)	0.835*** (2.83)	0.600*** (4.64)	1.239 (1.42)	-0.756 (-1.14)	0.0210 (0.06)
Time (Y2000 = 1)	0.328*** (3.15)	0.278*** (5.53)	-0.0633 (-0.20)	0.484** (2.35)	0.313** (2.10)
Time ²	-0.0135** (-2.48)	-0.0112*** (-4.43)	0.00646 (0.39)	-0.0291*** (-3.00)	-0.0141* (-1.89)
Constant	9.391*** (3.67)	2.105 (1.35)	10.90 (1.37)	12.87 (1.51)	-1.892 (-0.55)
Countries	124	124	124	49	99
Start Year	2000	2000	2000	2000	2000
End Year	2014	2014	2014	2017	2014
Observations	1499	1499	1499	712	615
Clustered SE?	✓	✓	✓	✓	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from AidData (AD) and SAIS-CARI (SAIS).

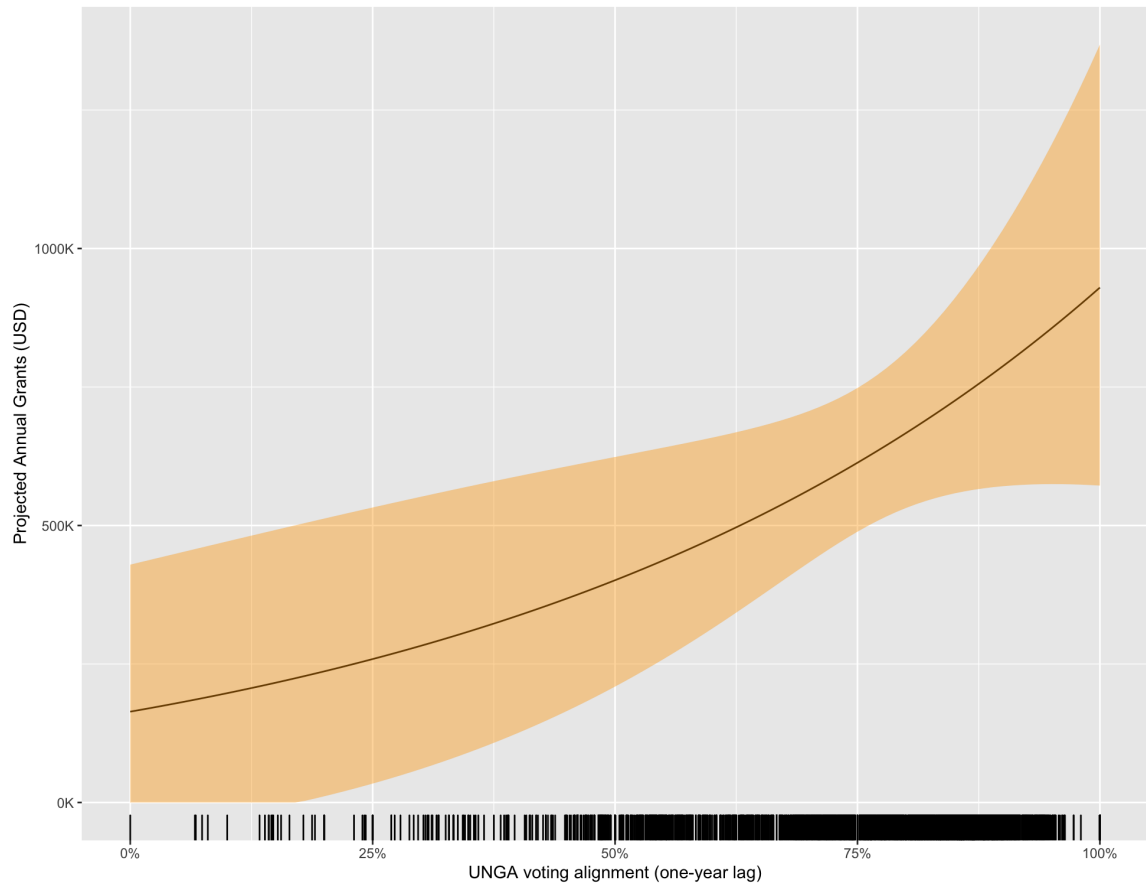
Table 4.1 displays the main results for small-scale concessional flows. The data are very supportive of a role for grants and zero-interest loans in addressing China's territorial disputes. The results for Taiwan recognition fit the predicted pattern: countries which recognize Taiwan receive much less financing across the board, but when China decides to make an exception, grants are much more common than zero-interest loans. China faces strong incentives to "roll out the red carpet" for countries considering switching relations from Taipei to Beijing, and given the sensitivity of the issue is likely to extend highly favorable terms. The model in Column 3 predicts that if all other independent variables are set to their mean values, a "typical state" which does not recognize Taiwan will receive \$78,696 per

year in zero-interest loans. This figure drops to less than a penny for those who recognize Taipei. The figures for grants per Column 1 are also drastic—recognition of Taiwan causes a fall from \$1.046 million per year to \$4,375—but do not drive projected flows down to (functionally) zero. So, per Column 5, Beijing’s diplomatic partners can expect grants to constitute 93.9 percent of total grants and zero-interest loans, but this rises to over 99.9 percent for Taipei’s diplomatic partners. Clearly, China intends to put its best foot forward when reaching out to Taipei’s diplomatic partners, but this happens only rarely.

A similar pattern is found among South China Sea disputants—China either cuts them off from all aid or demonstrates to dramatic effect how much they could benefit from backing off of their claims. Non-disputant ASEAN states, on the other hand, may receive slightly more favorable treatment than other states, but not in any statistically consistent way: they receive a larger number of grants per Column 2, but not necessarily a larger dollar value. There are individual instances of non-disputant ASEAN members receiving favorable treatment in exchange for support of China’s position—Chapter 8 will discuss China’s debt relief to Cambodia—but these are too few and far between to register in models of the aggregate data. The effect of territorial disputes, on the other hand, is quite clear. If all other independent variables are set to the sample mean, ASEAN members with no territorial disputes with China can expect roughly \$1.035M per year in grants, as opposed to \$195,492 for disputants. This is not as stark as the crash to under \$5,000 per year for Taiwan’s diplomatic partners, reflecting the unique sensitivity of Taiwan’s status in PRC policy. Non-disputant status is, however, associated with a drop from \$18,310 per year in predicted zero-interest loan flows to (again) less than one cent. This is less than the \$70,000 shortfall associated with recognition of Taipei, but still not trivial.

There is also moderate support for H2 regarding the UN-related variables. On one hand,

Figure 4.1: Predicted Total Grant Commitments vs. United Nations General Assembly Voting Alignment ($t-1$)



Based on Column 1 of Table 4.1 if all other variables set to mean.
Shaded area is 95 percent confidence interval.

the hypothesized negative relationship between UNGA voting and zero-interest loans does not exist. Nor is there a relationship between UNGA voting and the proportion of aid committed in grant form. On the other hand, as expected, grants are positively associated with UNGA voting alignment. This relationship is statistically inconsistent but substantively meaningful. Figure 4.1 shows this graphically.

While the model does predict a reasonably strong role for grants in China's diplomatic outreach, the rug plot at the bottom of Figure 4.1 illustrates that in practice, most develop-

ing countries tend to vote with China fairly often. Indeed, relatively little daylight exists between the sample's 25th percentile for UN voting alignment (70.1 percent) and the 75th percentile (86.4 percent). Per the model in Column 1 of Table 4.1, these two values would be correlated with \$565,693 and \$742,151 in grants per year, respectively. This is not a small difference, but also not enough to be considered consistent given the wide margin of error. Stronger effects can be observed toward the extremes of the distribution, but relatively few countries inhabit these areas. While these results are somewhat supportive of the theoretical prediction that grants are useful for general diplomacy, more specific diplomatic issues surrounding territorial disputes are more directly salient to Chinese policy.

The data support the hypothesis that geostrategically important states will receive better terms (H3), albeit inconsistently. Table 4.1 demonstrates that given the choice between grants or zero-interest loans to states bordering China or at maritime chokepoints, the Ministry of Commerce more often opts for grants. These results are consistent with the theoretical prediction of negative coefficients on zero-interest loans, but not the prediction of positive coefficients on grants. Given the general predominance of grants over ZILs, this implies that these strategically important countries are not receiving much less aid than others but instead that the allocation between grants and ZILs lies more in their favor. Specifically, the model in Column 5 of Table 4.1 predicts that on average,¹⁰ the distribution will be 99.3 percent grants for bordering countries as opposed to 92.3 percent elsewhere. Similarly, countries at maritime chokepoints are projected to receive 98.7 percent grants, as opposed to 93.3 percent for the rest of the sample set. Maintaining free passage through these countries mandates laxer financing terms.

The results for Belt and Road routes (Table 4.3 in the Appendix), on the other hand, are

¹⁰All other independent variables set to mean.

uniformly null. For small-scale concessional flows, recipient geography matters more than its positioning in China's stated policy on connectivity projects. Grants and zero-interest loans are being used to manage bilateral relations with countries along important trade routes and in some instances to promote border security, but they are too small to build connective infrastructure projects of the type likely to appear along the Belt and Road. As we shall see in later chapters, the task of building up the Belt and Road is left to less concessional but larger-scale financial arrangements.

Finally, it is worth noting that both grants and zero-interest loans flow to lower-income countries. This is not particularly surprising, but it is consistent with the idea that small-concessional flows are best for outreach to countries with the greatest need. We now look in greater detail at how this has worked in practice in Burundi and Rwanda.

4.2 Small-Scale Concessional Flows to Burundi and Rwanda

China has issued a similar mix of grants¹¹ and zero-interest loans to Burundi and Rwanda but has generally been more successful in persuading Burundi to support its diplomatic positions. This is largely because Rwanda is more popular with international donors and is subject to countervailing pressures, while Burundi (especially since its 2015 constitutional crisis) is proportionately more dependent on China. A comparison of the two demonstrates the diplomatic role of aid not just from China but also from elsewhere. This section compares the two in six parts. First is a brief introduction to pertinent information on Burundi and Rwanda. Second, I place Chinese aid flows in the broader context of aid from around

¹¹This does not include large amounts of debt forgiveness to both countries. Like many other donors, China has written off much of Burundi's and Rwanda's debt which accrued before the violence of 1993-1994 (Dreher, Fuchs, Parks, et al., 2018). This is functionally similar to a grant and no doubt relevant to Chinese diplomacy in the region, but I postpone discussion of it until Chapter 8 on treatment of distressed debt. In any event, both Burundi and Rwanda benefited from Chinese debt relief, so there is little cross-national variation.

the world. Third, I analyze the sectoral composition of Chinese aid to confirm that it is indeed used for smaller projects in the social sectors. Fourth, I look at differences between grants and zero-interest loans; while the proportion of these two categories did not vary much between Burundi and Rwanda, there are important qualitative differences in how they were used. Fifth, I shift to a more micro-level analysis of projects of individual diplomatic significance, including some which have occurred after 2014, the latest year in the primary quantitative dataset from Dreher, Fuchs, Parks, et al. (2018). Sixth, I look at actual diplomatic outcomes in each country.

4.2.1 Background: Burundi and Rwanda

Landlocked and nestled between larger countries in Africa's Great Lakes region, Burundi and Rwanda have quite a bit in common. They have similar populations—10.9 million in Burundi and 12.2 million in Rwanda—and are both least-developed countries, with per capita incomes below \$1,000.¹² They also produce few commodities¹³ other than coffee and tea and are not central to Belt and Road navigational interests which play a major role in Chinese foreign policy.¹⁴ Burundi and Rwanda differ substantially, though, in governance. This difference has roots in their shared tragic history of the 1990s.

Both Burundi and Rwanda are divided between a Tutsi minority and Hutu majority, with the former historically playing a leading role in government. Ethnic tension between the two

¹²Figures per World Bank (2018c) as of 2017.

¹³There is a small exception for tantalum, a mineral used in electronic circuits. Rwanda is a leading exporter of tantalum, some of it illicitly mined in conflict regions of the eastern Congo and reported as Rwandan production. However, the value of Rwandan (and laundered DRC) exports put together did not exceed \$40 million in 2017 (Simoes and Hidalgo, 2011).

¹⁴Both are part of a planned regional network which could more efficiently connect Congolese minerals to the Indian Ocean coastline. These plans, however, have currently reached the construction phase only in coastal Kenya and Tanzania, and it remains to be seen what the eventual inland components might look like and how involved China will be. This topic will be covered in the Conclusion chapter (Chapter 9 along with other future trends and areas of further research.

increased under German and Belgian colonialism as the Europeans relied on the Tutsis as a local ruling class. This fault line has been the subject of periodic outbreaks of violence, the worst of which happened in the 1990s. At the outset of that decade, Burundi had a Tutsi-led government, and Rwanda a Hutu-led one. In 1990, the predominantly Tutsi rebel group Rwandan Patriotic Front (RPF) invaded Rwanda from Uganda. An ethnic civil war continued for several years and was still ongoing when neighboring Burundi in June 1993 held its first-ever democratic elections, in which Melchior Ndadaye become Burundi's first Hutu president. In October, Ndadaye was assassinated, sparking Burundi's own civil war. In April 1994, a plane carrying Ndadaye's successor as well as the Rwandan President was shot down, triggering the Rwandan genocide which claimed at least half a million lives¹⁵ (International Commission of Inquiry for Burundi, 2002).

This is where Burundi's and Rwanda's paths began to diverge. In Rwanda, the Tutsi-led rebels of the RPF took control of the country and put an end to the genocide. Their leader, Paul Kagame, has been the *de facto* leader ever since and the *de jure* President since 2000. The 1990s remained somewhat tumultuous as Rwanda was involved in wars in the neighboring DRC, but the 2000s saw a remarkable transformation as Rwanda became an unexpected island of stability in a dangerous neighborhood. This has happened through both economic capacity- and institution-building and political repression. For the purposes of this dissertation, this illuminates the distinction between the type of institutional strength which is relevant to international (and domestic) investors and rules such as freedom of expression which might be labeled as "good institutions" in their own right but make less of a difference from a purely economic perspective.

On one hand, Rwanda is not democratic. Kagame's first formal election to the Presidency in

¹⁵The death toll of the Rwandan genocide is still a subject of some debate. See Lemarchand (2018).

2000 was made by an 83-2 vote in Parliament, not the public. Rwanda's 2003 Constitution formally provides for popular elections, but Kagame has "won" all of his popular contests by margins of over 90 percent. The most recent, in 2017, came after a constitutional change to allow him to stay beyond the originally planned term limit (Uwiringiyimana, 2017). Freedom of expression is sharply limited, and the media are heavily censored (Freedom House, 2019). The state's heavy hand is accepted to a greater degree because of the memory of what instability can look like: as the Executive Director of the non-profit Human Rights Watch put it, the "tragedy is providing the government with a cover for repression" (Roth, 2009).

On the other hand, Rwanda has built a fairly robust legal environment, as of 2018 ranking fifth in Africa in the Worldwide Governance Indicators' Rule of Law index (Kaufmann and Kraay, 2018). Rwanda is one of a minority of African countries with access to international bond markets and maintains relationships with both the IMF and World Bank (World Bank, 2018c). Granted, the strength of Rwandan rule of law is not equal across all sectors of the economy. Part of the Rwandan party-state's strategy for maintaining power has been using party- or military-owned firms as a mechanism to distribute rents to elites who prove their loyalty (Gökgür, 2012). These firms enjoy preferential treatment, and those dealing with them may be exposed to higher levels of political risk than elsewhere in the Rwandan economy. Party- and military-connected firms have not typically been involved in small aid projects and will not be discussed in detail in this chapter. They are, however, heavily involved in infrastructure and public works and will be discussed as a source of within-country variation in the next chapter.

Despite some subnational inconsistency, Rwanda retains a much stronger reputation for governance than Burundi, leading to greater inflows of funding from Europe in particu-

lar (Hackenesch, 2018). Kagame himself has gained some status in international financial circles. The former guerrilla appeared on a panel on financing to developing countries at the 2019 Davos World Economic Forum. His co-panelists included IMF Director Christine Lagarde and the rock star and philanthropist Bono, with former USAID Administrator Rajiv Shah moderating (Kagame, 2019). The Executive Director of Human Rights Watch, a more critical voice, writes that “Western governments, guilt-ridden at not having stopped the genocide and impressed by Rwanda’s stability and economic growth, have been all too willing to close their eyes to [...] repressive sleight of hand” (Roth, 2009). In his estimation, many foreigners are making the same calculation as Rwandan citizens, accepting an autocrat out of fear of the alternative. There are certainly other interpretations of events. It is debatable how much international financial circles pay attention to human rights in contexts where the West might feel less guilt.¹⁶ The point remains, though, that Kagame has done what has eluded many others in his position: building an economically stable enough environment to convince outsiders to overlook disagreements over how to manage more purely political affairs. Kagame’s gambit has made Rwanda disproportionately influential in African diplomacy as well. He was the 2018-2019 Chair of the African Union (African Union, 2018). Despite the country’s small size, Rwanda is the world’s third-highest contributor of personnel to UN peacekeeping missions, with Rwandan blue helmets constituting 19.7 percent of the UN’s total strength in South Sudan, 17.8 percent in Darfur, and 13.7 percent in the Central African Republic.¹⁷ Rwanda’s ability to turn danger into stability and outsized influence has drawn comparisons to Singapore, although Kagame himself has downplayed them (Ultsch, 2018). In any event, Rwanda’s stature in regional affairs makes it an important diplomatic partner for extra-regional powers, China included.

¹⁶The recent scandal following Saudi Arabia’s murder of dissident journalist Jamal Khashoggi is a case in point, as is the rise of China itself.

¹⁷As of January 2020. See Peacekeeping (2020).

Burundi, in contrast, has not fully escaped the cycle of chronic unrest of which the 1993-1994 bout of violence was the worst instance. Burundi also has a leader who has maintained power via questionable means, but its economic institutions are not as strong as Rwanda's. The Burundian civil war continued through 2005, at which time a peace settlement brought Pierre Nkurunziza to power as Burundi's first elected President since Melchior Ndadaye's 1993 assassination. Like Kagame in Rwanda, Nkurunziza has won repeated elections by unrealistically high margins, typically with opposition bans or boycotts; also like Kagame, he in 2015 decided to stay beyond the planned term limit. In Burundi, though, there was no constitutional change. In April 2015, violent protests began. In May 2015, there was a failed coup attempt (Thomson, 2016). Nkurunziza's official argument was that his first election had been by the Parliament, not voters, and so it did not count toward term limits. This interpretation was set to expire, though, with the end of his third term in 2020. A 2018 constitutional change passed with suppressed voter turnout did away with this limitation (J. Moore, 2018). He has currently pledged to step down in May 2020, although many doubt how much different Nkurunziza's hand-picked successor will be, or how thoroughly the previous president will relinquish power (Mwakideu, 2020; Nimubona, 2018). This leads to a deeper problem for investors: like Kagame's, the structures of power which Nkurunziza has built may outlast him, but in this case, they are a deterrent to investment. Burundi's political economy is essentially patrimonialist, with state benefits flowing to members of the ruling party at the expense of those less connected (International Crisis Group, 2012). The letter of the law is secondary to personal connections, and written contracts are subject to unexpected renegotiation. As of 2018, the Worldwide Governance Indicators ranked Burundi at the 5.8 percentile for Rule of Law, and the 5.3 percentile for Control of Corruption (Kaufmann and Kraay, 2018). The impact of corruption and instability on growth and individual businesses has been heightened since the 2015 protests: the government

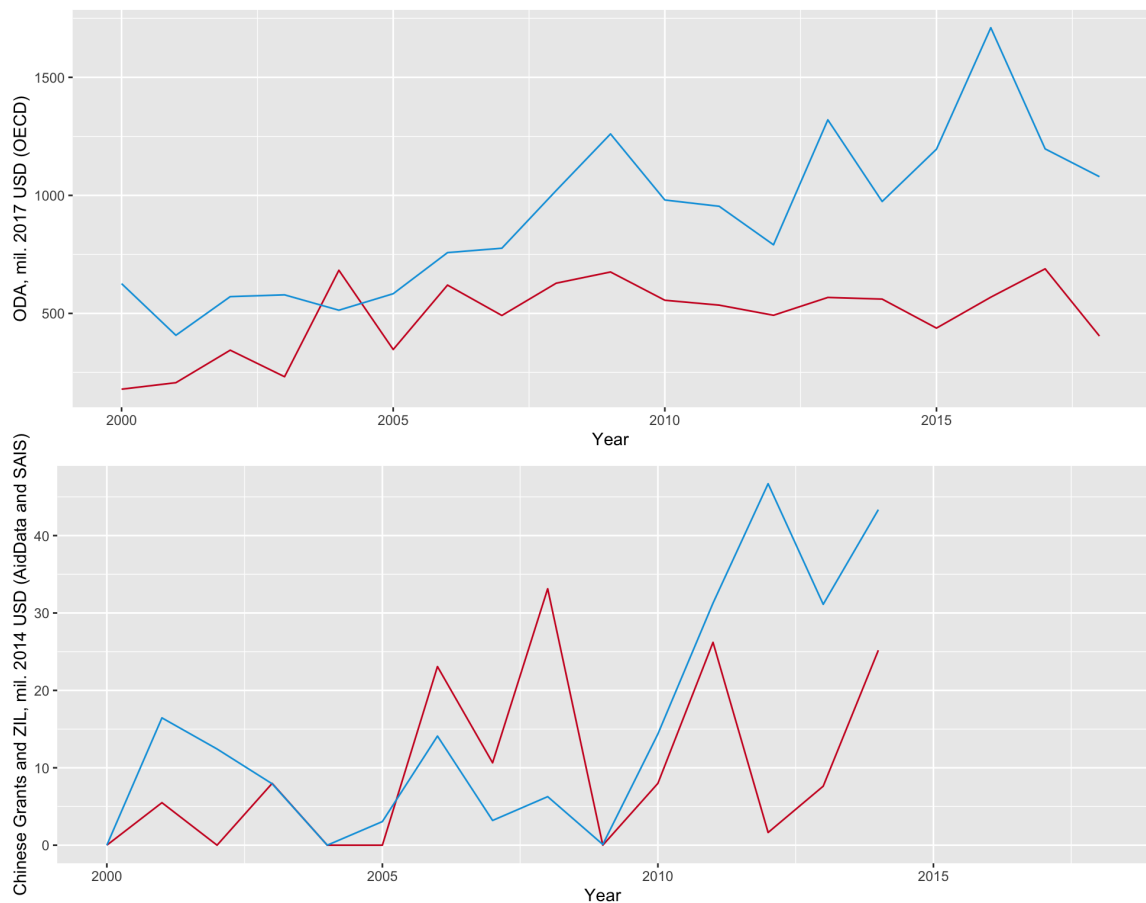
has introduced new mandatory family “contributions” to the national Treasury to address sovereign debt concerns, and many civil servants have not been regularly paid (International Crisis Group, [2018a](#); Nantulya, [2019](#)). Nkurunziza is not running in the May 2020 presidential election, but early indications point toward more of the same: Nkurunziza’s retirement package includes 1 billion Burundian francs (US \$530,000) and a luxury home, and there is legislation currently before Parliament to name him “Supreme Guide of Patriotism” (Mwakideu, [2020](#); Reuters, [2020](#)).

4.2.1.1 Chinese Aid in Broader Context

These developments have affected many donors’ relationships with Burundi and Rwanda, which in turn affects the environments in which China operates in each country. I here compare Chinese grants and zero-interest loans to flows from other donors over time. This is made more difficult by differing rules of accounting. OECD reporting conventions do not separate loans at zero interest from loans at interest rates low enough to be deemed concessional by a standardized formula. Both are included alongside grants as “Official Development Assistance” (ODA). This is obviously different from the Chinese system, which groups grants and zero-interest loans under one bureaucratic umbrella while a different set of organizations handles interest-bearing loans. Readers should be aware of this difference when viewing Figure 4.2. This figure compares Chinese grants and zero-interest loans (bottom) with ODA from all official sources (national governments and multilateral organizations) which report to the OECD (top), a list that includes all OECD members as well as several large donors from the Middle East.

Figure 4.2 shows that Chinese aid to Burundi and Rwanda is a fairly small percentage of the countries’ total official receipts. Part of this is due to differences in accounting—

Figure 4.2: OECD-Reported Official Development Assistance (All Official Sources) and Chinese Grants and Zero-Interest Loans, 2000-2018 (Commitment Basis)



Burundi in Red; Rwanda in Blue

ODA data from Organisation for Economic Co-operation and Development (2018). Chinese data from Dreher, Fuchs, Parks, et al. (2018) (grants) and Atkins et al. (2017) (ZILs).

the inclusion of concessional loans at interest above zero, the topic of the next section, would narrow the gap somewhat—but even so, China is one among many countries and multilateral organizations involved. That being said, the allocation of Chinese aid is more equitable across the two countries than has been the case for most other donors. The 2015 violence in Burundi led to fears that many donors might cut back, but the reality is that aid largely flatlined following the end of the civil war in 2005. Donors may never have been comfortable with Burundi’s domestic political environment, but the need there is too great to ignore, and so they simply muddle through at existing aid levels without increasing expenditures. In real terms, this has put serious stress on the Burundian budget. Burundi fell into a recession after the 2015 protests, and aid receipts have not increased to keep up with the resulting fiscal deficits. In contrast, Rwanda has high rates of poverty but an institutional framework in which donors feel more comfortable, and international aid commitments have continued to rise along with the country’s market reputation.

China has in some years actually given more to Burundi than to Rwanda, a phenomenon which for other donors happened only during the later phases of the Burundian Civil War. Its commitments to Rwanda do generally exceed those to Burundi, but not by such a large margin.

One limitation of this comparison is that AidData’s figures only run through 2014, the year before Burundi’s renewed violence began (Dreher, Fuchs, Parks, et al., 2018). While a more comprehensive analysis of Chinese aid after the crisis would be difficult,¹⁸ it is possible to integrate the more comprehensive data available through 2014 with publicly available information since then, with the understanding that this may not be the complete

¹⁸Larger projects, especially those associated with construction works, are relatively easy to observe. However, cash grants or donations of equipment or supplies can easily go unrecorded, and this author does not claim to be able to track them as effectively as large teams at AidData or SAIS-CARI (Atkins et al., 2017; Dreher, Fuchs, Parks, et al., 2018).

Table 4.2: Allocation by Sector of Chinese Aid to
Burundi and Rwanda, 2000-2014

Sector	Burundi	Rwanda
Education	23.1%	7.9%
Government and Civil Society	1.1%	23.7%
Health	13.6%	3.7%
Unallocated / Unspecified	43.7%	43.7%
Other Sectors	18.5%	21.0%

Data from AidData (Dreher, Fuchs, Parks, et al., 2018) and SAIS-CARI (Atkins et al., 2017).
Includes both grants and zero-interest loans.
“Other Sectors” is a residual of other categorized flows.

picture. The following sections do so by looking at differences across sector; differences between grants and zero-interest loans; and projects of individual significance.

4.2.1.2 Cross-Sector Comparison

The largest single category of aid to both countries was unallocated, meaning that its use was either not stated; to be determined; or a simple cash contribution to the state budget. A literal blank check is highly diplomatically useful, as no conceivable deal has fewer (formal) strings attached. The remainder tends to go to social sectors like health and education (Burundi) and government administration (Rwanda). Burundi’s needs in health and education are generally higher, and Rwanda’s high total for the governmental sector was driven by two new government buildings. As will be discussed in the project-level analysis, China also built Burundi’s Presidential Palace after the end of the Dreher, Fuchs, Parks, et al. (2018) dataset in 2014.¹⁹ In general, a focus on social sectors is typical of Chinese (and

¹⁹AidData (Dreher, Fuchs, Parks, et al., 2018) lists the Presidential Palace project as dating back to 2008, but at the time of their publication there was not yet a set budget. So, it was included in the dataset without a dollar value and is thus not reflected in Table 4.2.

other) aid projects. Larger works such as infrastructure require too much capital to sustainably do on a grant or zero-interest basis, but smaller social-sector projects can be done on this basis and can be appreciated for taking pressure off of recipients' state budgets.

4.2.1.3 Grants vs. Zero-Interest Loans

There is no appreciable variation in total allocation between grants and zero-interest loans between Burundi and Rwanda. Chinese small-scale concessional flows²⁰ to Burundi were 60.1 percent grants; to Rwanda, 65.6 percent. However, there does exist interesting within-case variation in how grants and zero-interest loans were used. In Rwanda, 75.8 of ZILs in the AidData database went to the “Unallocated / Unspecified” category, as opposed to 35.0 percent of grants. For Burundi, these numbers were 96.2 and 32.0 percent, respectively. Zero-interest loans are mostly going to unspecified purposes, leaving quite a bit up to the recipient government's discretion. This could reflect the existence of grants in kind. Donation of medical equipment, for example, is automatically slated for the medical sector; this option does not exist for ZILs. That being said, most grants are made in cash, and the differential is too large to be explained solely by in-kind grants. Another possibility is that a blank check for the local government is a kind of consolation prize for having to actually repay the funds; as in, zero-interest loans would be more stringent in raw financial terms, but with fewer strings attached as to how to use the money. This distinction does not hold up as well in the larger-n sample: globally speaking, 43.3 percent of ZILs were unallocated or vaguely allocated²¹, as opposed to 36.7 percent of grants. China did deploy both grants and zero-interest loans in Burundi and Rwanda, but the terms were adjusted to reduce the

²⁰Combined grants per Dreher, Fuchs, Parks, et al. (2018) and zero-interest loans per Atkins et al. (2017). Years 2000-2014.

²¹Includes the “General Budget Support,” “Other Multisector,” and “Unallocated / Unspecified” categories, of which the third was the most important in Burundi and Rwanda.

negative diplomatic impact of the ZILs in countries where diplomacy is among the Chinese government's primary interests.

4.2.1.4 Individual Projects

Much of China's aid to Burundi and Rwanda fell into categories such as health and education which have been focuses of international development and philanthropy since the 1990s. This would have been appreciated but is not particularly distinct from what other donors have done. A few projects, though, are different. China has donated some items, often but not exclusively government buildings, which have some prestige value for local governments but have limited developmental impact and would be less likely areas of emphasis for many donors. The impact that these items has can also vary by circumstance. A vote of confidence is appreciated where most other parties also express confidence (Rwanda), but goes further in countries where many have serious doubts (Burundi).

In Burundi, China has shown support for the government during both good times and bad. In 2011, China agreed to donate one Xi'an MA60 aircraft to Air Burundi, the national carrier, on the condition that Burundi later purchase another. This "buy one, get one free" deal was not purely aid but was important to Burundi under the circumstances: Burundi Air had not flown since 2009 after its only airplane reached the end of its useful life. In 2012, Burundi took delivery of the first plane. Burundi has yet to buy the second, and given its current unrest this part of the plan will likely remain on hold for the time being. Because of a lack of certified crew,²² the plane has yet to be cleared to fly, but China's singlehandedly restoring the national carrier to operations (if only on paper) had to be appreciated by the

²²This has been the official explanation given. The MA60, however, has had numerous safety problems and is not cleared to fly in many countries. Safety concerns may factor into the plane's indefinite grounding, although it is difficult to establish this from the outside. See ch-aviation (2017) and Stacey and C. H. Wong (2016).

leadership (ch-aviation, 2017; Dreher, Fuchs, Parks, et al., 2018).

Another hybrid deal mixing grants with commercial terms came from another area of comparative advantage for China: telecommunications. In 2011, Huawei agreed to build the capital city of Bujumbura's first broadband network, the Metropolitan Area Network. The original plan was to focus on connecting government agencies (Boyle, 2014; Comms Update, 2014). In 2011, only 1.1 percent of Burundi's population was connected to the Internet, and connections for the civil service were a top priority (International Telecommunications Union, 2019). China funded the project with a \$7.5 million grant from the Ministry of Commerce and a \$7.5 million loan from Exim (Dreher, Fuchs, Parks, et al., 2018). This is part of a broader pattern regarding Huawei and Zhongxing Telecommunications Equipment (ZTE), its major domestic competitor, in their overseas operations. Construction of cheap telecommunications networks has become a tool of diplomatic outreach for China, especially in developing countries which cannot afford more expensive competitors (W. G. Moore, 2019). Mackinnon (2019), for example, estimates that Huawei by itself has built around 70 percent of Africa's 4G mobile networks. Huawei and ZTE's low cost are partially a function of China's low costs as a country, but not entirely so. Yap (2019) estimates that Huawei received up to \$75 billion in tax breaks, subsidized credit, and other support between 1998 and 2018. If one takes into account Huawei's domestic subsidies, the portion of the project funded without remuneration was even higher than the publicly announced 50 percent grant financing.

The most important in way in which China supports the Burundian government, however, has to do with regime legitimacy. China contributed \$263,000 to electoral support ahead of Burundi's 2010 elections and \$800,000 in materials ahead of the ill-fated 2015 polls. In both instances, though, China was a relatively small contributor in the context of tens of

millions of mostly European funds routed through organizations like the United Nations Development Programme (UNDP) (Dreher, Fuchs, Parks, et al., 2018; United Nations Development Programme, 2015). The real difference was in how China has treated the Burundian regime after the violence surrounding the 2015 polls. Many donors might have opted to remain in Burundi for fear of what happens if they leave, but China has expressed more vocal support for the regime through the construction of a new Presidential Palace. This project dates back to an agreement before the protests, but it came to fruition after the violence began and was handed over in 2019. The \$22 million, 10,000 square meter (108,000 square foot) facility would have been otherwise out of Burundi's reach even before the post-2015 recession; as Burundi's Minister of Foreign Affairs put it at the handover ceremony, "since the independence of Burundi, we have not had such a building" (Nininahazwe, 2019; People's Daily 【人民日报】 , 2019; Xinhua, 2013). The Economist Intelligence Unit (2014) reported that:

The Burundian authorities, who rely on foreign aid for nearly half of the state budget, will be particularly keen to ensure continued backing from China at a time when several Western donors, including France and the US, have grown increasingly critical of its democratic record. Indeed, a number of Burundi's traditional donors are increasingly reluctant to extend their support to the government amid an apparent drive to close the democratic space, by arresting or harassing critics and opponents. Partners, such as India and China, which are less concerned about Burundi's political and governance record, are thus likely to be of increasing importance.

Even if donors did not actually leave following the 2015 unrest, aid did remain flat, and this as Burundi was already having trouble raising enough taxes to cover expenditures. More to the point, other donors were mostly not spending on grandiose symbols of presidential power. The clear message was that China, as a fellow developing (and authoritarian) country, was in a position to understand Burundi in a way that wealthy Western states would

not. The rhetoric of non-interference and South-South cooperation discussed in Chapter 2 here finds new life well after the Cold War.

Rwanda had projects of this nature, but they were less audacious and carried less weight given Rwanda's more diversified foreign relations. One very early one was Amahoro Stadium, the country's largest. Originally built by China Civil Engineering Construction Corporation (CCECC) in the 1980s, the \$22 million facility already had some symbolic value well before China's pockets deepened in subsequent decades. As of 2018, China is funding the stadium's renovation at a cost of roughly \$2.3 million²³—a small gesture, but a symbolically meaningful one (Tashobya, 2018). Like some government buildings, stadiums often have more prestige value than economic value, meaning China may be more willing to expend resources here than some more purely development-driven organizations. Sports venues' potential as public relations winners has driven China to engage in so-called "stadium diplomacy" in many other countries as well (Vondracek, 2019).

China has also contributed to the government sector in Rwanda. In 2006, China agreed to a grant to build a new facility for Rwanda's Ministry of Foreign Affairs. The Beijing Construction Engineering Group (BCEG) completed work at a cost of \$7.66 million, and Chinese Foreign Minister Yang Jiechi personally attended the building's handover (Dreher, Fuchs, Parks, et al., 2018; Ministry of Foreign Affairs of the People's Republic of China, 2009). This type of high-level attention from a major power cannot be taken for granted in small countries and amplifies the building's diplomatic impact.²⁴ In 2008, while the Ministry of Foreign Affairs building was under construction, the Chinese Communist Party (CCP) donated \$150,000 worth of electronic equipment to the Rwandan Patriotic Front

²³2.0 billion Rwandan francs, at conversion rate at the date of publication of the cited article. Exchange rate data per Oanda (2020).

²⁴High-level PRC officials' willingness to travel to even smaller developing countries can be a selling point of Chinese engagement. See Eisenman and Heginbotham (2018).

(RPF), the ruling party (Dreher, Fuchs, Parks, et al., 2018). The amount is obviously very small, but there is an important qualitative difference between this type of deal and most other aid projects. Here, the “one party” in a one-party state is extending assistance to a similar organization, despite the (sometimes muted) disapproval of many international donors of this mode of governance. China’s non-interference policy again finds new life after the Cold War. Since then, the China Top International Engineering Corporation has built Rwanda’s new Administrative Office Complex, a gift from China. The building houses, among several others,²⁵ the office of the Prime Minister—not the most powerful person in the country (this honor belongs to President Kagame), but not a low-profile one, either. On the Chinese side, *China Daily* reports that “Zheng Jianbang, the visiting vice-chairman of the National Committee of the Chinese People’s Political Consultative Conference, was present to witness the” facility’s handover (Tasamba, 2019). The building used 30 percent Rwandan and 70 percent Chinese materials, thereby keeping some contract value within Rwanda without running afoul of China’s tied procurement rules. The facility cost \$27 million to complete, putting it in roughly the same league as Burundi’s Presidential Palace (Lyu, 2019; Tabaro, 2019). However, the circumstances are quite different from Burundi: whereas one-party (and significantly one-man rule) in Rwanda has gained a degree of international acceptance, Burundi’s corruption and instability mean that its leadership does not enjoy such status. So, Chinese outreach has generated stronger diplomatic results in Burundi than in Rwanda. We turn next to this topic.

²⁵Per Tabaro (2019), these are the “Ministry of Justice, Ministry of Infrastructure and the Rwanda Law Reform Commission.”

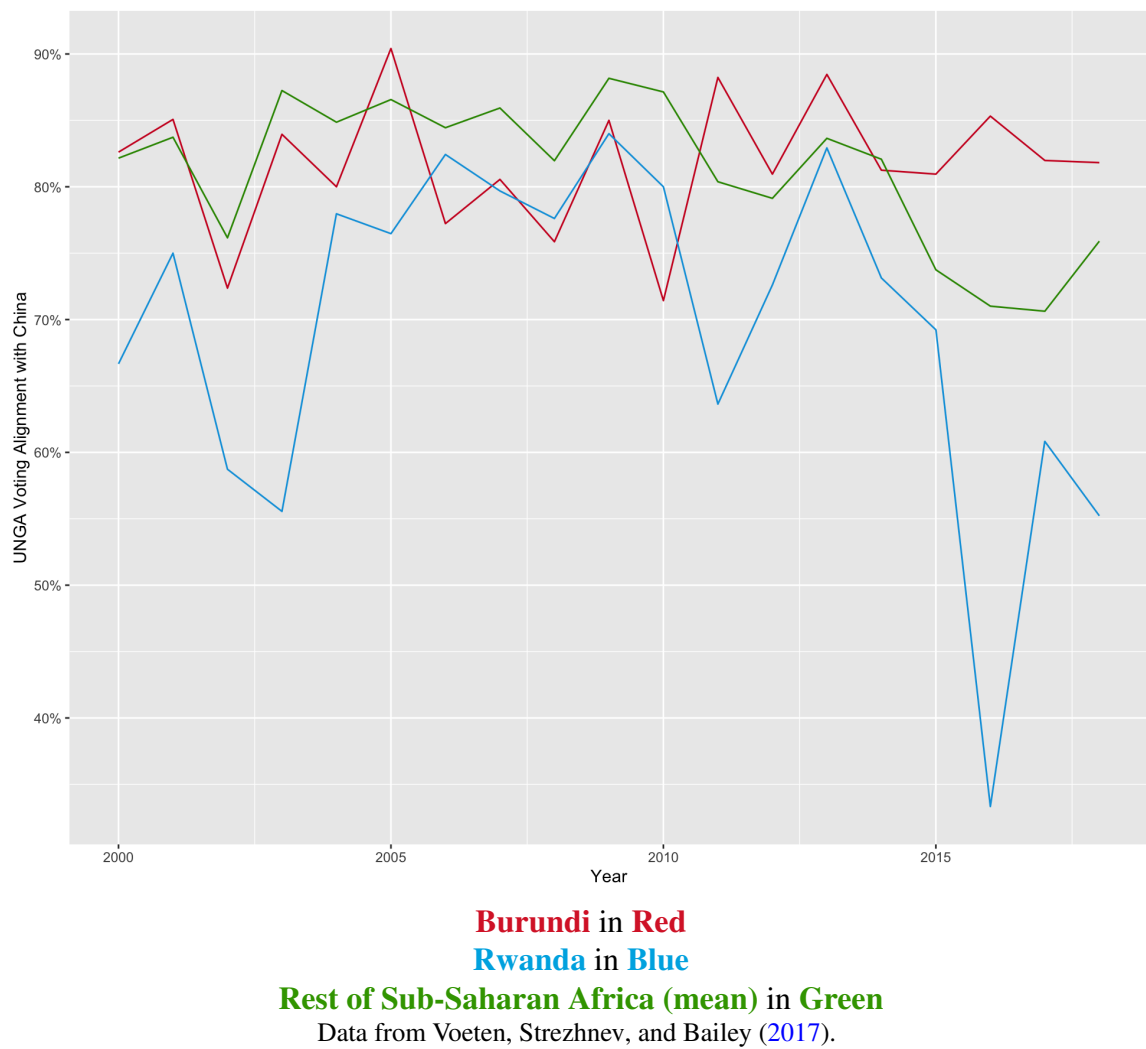
4.2.1.5 Diplomatic Outcomes

As was done for the statistical analysis, diplomatic outcomes can be measured both by aggregate alignment (United Nations General Assembly voting) or more specific issues of significance. The status of Taiwan is not an issue in this case. Burundi and Rwanda established embassies in Beijing during the 1960s and 1970s. However, Burundi has weighed in Chinese policy in the South China Sea, Sri Lanka, and Xinjiang; all issues far from its own interests but close to China's. On all three of these, Rwanda has stayed silent. I begin with a general overview of diplomatic alignment with a focus on United Nations General Assembly (UNGA) voting and continue to the specific issues of the South China Sea, Sri Lanka, and Xinjiang.

Figure 4.3 maps Burundi's and Rwanda's UNGA voting alignment with China over time. Both countries voted with China very often through 2015, albeit Rwanda somewhat less so. These numbers are not out of the ordinary: the mean voting alignment with China for sub-Saharan African countries between 2000 and 2015 was 82.7 percent. However, Rwanda was always somewhat more aloof, averaging 73.5 percent alignment during this time period to Burundi's 81.5 percent.

However, this all changed after 2015. Around this time, African alignment with China was on a slight downhill trajectory, but Burundi stayed the course and voted with China as often as before. Rwanda, though, began to sharply disagree with China, voting with Beijing only 33.3 percent of the time in 2016. During his opening address at the 2018 Forum on China-Africa Cooperation (FOCAC), a triennial multilateral meeting of leaders from all African countries and China, Rwandan President Paul Kagame stated that "Africa is not a zero-sum game. Our growing ties with China do not come at anyone's expense. Indeed, the gains are enjoyed by everyone who does business on our continent" (Kagame, 2018).

Figure 4.3: United Nations General Assembly Voting Alignment of Burundi and Rwanda with China, 2000-2018



Kagame was speaking in his capacity as rotating Chair of the African Union and spoke about the continent as a whole, but his words worked particularly well for his home country, which indeed was charting a middle course between an influx of money from major multilateral organizations and developed-world donors and a steady, productive relationship with China. Burundi was in a very different position, staying with Beijing to a greater degree than many of its African neighbors.

More concretely speaking, Burundi's closeness to China has led it to take closer positions to China's on controversial issues surrounding the South China Sea, Sri Lanka, and Xinjiang.

Burundi began by only weakly supporting China on the South China Sea, mostly keeping its head down on a controversial issue. As its domestic economic situation deteriorated and its reliance on China increased, however, a generous aid package later convinced the Burundian leadership to more overtly support Beijing.

The faraway (from Burundi's perspective) South China Sea dispute became more salient to China's relationship with many otherwise neutral countries in the 2010s as the Philippines brought the dispute to international arbitration and ultimately won. On July 12, 2016, the Permanent Court of Arbitration (PCA), an international tribunal based in the The Hague, ruled that many of the disputed features in the Sea did not meet the minimum criteria to generate territorial claims, thereby invalidating most of the disputants' claims. While this was technically a setback to both sides, the Sea's *de jure* neutralization was generally taken as a victory for the Philippines, which was much less capable of its enforcing its claims via military power projection. China had years prior committed not to participate in the arbitration and engaged in a diplomatic offensive to win other countries over to its perspective. By the day after the tribunal's decision, Chinese press articles were

already citing a Beijing think tank claiming that sixty-six states supported China's position (Guanchazhe Wang 【观察者网】 , 2016). A later article published by the think tank authors clarified that this relied on a fairly generous interpretation of China's position, including that "China will adhere to peaceful negotiations and settlements of the South China Sea dispute" (Wang Wen and Chen Xiaochen, 2016). In other words, countries which made statements indicating hope for peaceful resolution but not actually weighing in on the dispute were being counted as "supportive."

Burundi was one of these. On May 10, 2016, before the tribunal had issued its final ruling, the Burundian Embassy in China released a statement on the South China Sea. The statement was divided into two main sections: one from a Chinese perspective, and a second from Burundi's. The first section relies heavily on quotes from Chinese officials:

Chinese islands have been illegally occupied (*Emphasis in original*)

According to the first counselor of China's Embassy in Burundi, Sun Jian, China's sovereignty over the islands of the South China Sea is based on sound legal and historical foundations. Speaking about the origin of the issue, he pointed out that beginning in 1970, many Chinese islands were illegally occupied by Vietnam, the Philippines and Malaysia. "It caused a territorial dispute between these countries and China."

He also said that his country did not agree with the Philippines' initiative to go through international arbitration to find a lasting solution to this dispute. "It is an action which is totally contrary to the provisions of the United Nations Convention for the Law of the Sea, contrary to their own pledges, contrary to their agreements with China, and contrary to the preservation of peace and stability in the South China Sea. " According to him, "the Chinese government will not accept, recognize or execute the verdict of an illegal arbitration tribunal." On the other hand, he stressed that China continues to actively work together with the concerned parties through constructive measures and negotiation to settle these disputes over territory and maritime demarcation.²⁶ (Nduwamungu,

²⁶ Author's translation from original French:

Les îles de Chines ont été occupées illégalement

Selon le premier conseiller à l'ambassade de Chine au Burundi, Sun Jian, la souveraineté de la Chine sur

2016)

This part of the Burundian statement does not speak for Burundi so much as it quotes a Chinese diplomat on China's official stance. Non-recognition of the tribunal and peaceful resolution are both mentioned as part of China's stance, but the only indication that Burundi is weighing in comes through the section header, "Chinese islands have been illegally occupied." The second part of the statement is much clearer on Burundi's views:

The government of Burundi salutes the courage of the Chinese people (*Emphasis in original*)

On behalf of the Minister of External Relations and International Cooperation, the Minister's assistant, Ambassador Thomas Barankitse, said that the question presented was of current significance and, if not resolved, could provoke the rending of the fabric of good, peaceful coexistence at the regional, continental, and international levels.

He thus praised the interest and the courage manifested by the Chinese people and their government for their appeal to seek a peaceful settlement of this dispute while respecting the rights of all sovereign states in accordance with the Charter of the United Nations and with the principle of mutual respect for sovereignty and territorial integrity established by that charter.

While appealing to all the countries concerned to seek a peaceful settlement to this dispute, he reiterated Burundi's commitment to strengthening the friendly relations between Burundi and the Chinese people.²⁷ (Nduwamungu, 2016)

les îles Mer de Chine méridionale est basée sur des fondements juridiques et historiques solides. Parlant de l'origine de cette question, il a souligné qu'à partir de 1970, beaucoup d'îles de Chine ont été occupées illégalement par le Vietnam, les Philippines et la Malaisie. « Cela a suscité un différend territorial entre ces pays et la Chine ».

Il a également indiqué que son pays n'est pas d'accord avec l'initiative des Philippines de passer par un arbitrage international pour trouver une solution durable à ce différend. « C'est une action qui est tout à fait contraire aux dispositions de la convention internationale des Nations unies sur les droits de la mer, contraire à leurs propres engagements, contraire à leurs accords avec la Chine et contraire à la préservation de la paix et de la stabilité en Mer de Chine méridionale ». Selon lui, le gouvernement chinois n'acceptera, ne reconnaitra et n'exécutera le verdict d'un tribunal d'arbitrage illégal ». Par contre, il a souligné que la Chine continue de travailler activement ensemble avec les parties concernées par voie de consolidation et de négociation pour régler ces différends territoriaux et sur la démarcation maritime.

²⁷ Author's translation from original French:

Le gouvernement du Burundi salue le courage du peuple chinois

The Burundian Ambassador expresses both respect for the Chinese people's spirit and hope that the dispute will be resolved peacefully, but he does not even mention the tribunal or any of the concrete details of the dispute brought up by the Chinese side. This was a lowest common denominator attempt to express sympathy for China without actually taking any firm stance on an issue on which China has been largely diplomatically isolated. Nevertheless, by May 20, the Chinese Embassy in Burundi published a statement that Burundi supported China on the specific issue of its use of Article 298 of the United Nations Convention on the Law of the Sea, an opt-out mechanism for arbitration for issues of sovereignty (Embassy of the People's Republic of China in Burundi 【中华人民共和国驻布隆迪共和国大使馆】, 2016). It is possible that someone from the Burundian side said this in private, but it was certainly not in the public statement.

Two months after the Burundian statement's publication (and immediately after the tribunal's ruling), China included Burundi as one of the sixty-six countries backing its position, the stated reason being that China and Burundi both believed in peaceful resolution of the dispute. This could easily lead to the mistaken impression that Burundi had unambiguously supported China, which in turn was an unpopular stance in the international community. Burundi was in a dilemma. On one hand, it could publicly correct China and reiterate that it had not said anything concrete about the dispute, but this would endan-

Au nom du ministre des Relations extérieures et de la coopération internationale, l'assistant du ministre, l'ambassadeur Thomas Barankitse, a indiqué que la question présentée est d'actualité intéressante qui, une fois non résolue, peut provoquer un déchirement du tissu de la bonne cohabitation pacifique au niveau régional, continental et international.

Il a ainsi salué l'intérêt et le courage manifestés par le peuple chinois et son gouvernement pour l'appel qu'il lance à rechercher un règlement pacifique de ce différend dans le respect des droits de tous les Etats souverains conformément à la charte des Nations unies et au principe du respect mutuel de souveraineté et de l'intégrité territoriale établi par la même charte.

Tout en lançant un appel à tous les pays concernés à chercher un règlement pacifique à ce différend, il a réitéré l'engagement du Burundi pour le renforcement des relations d'amitié entre le Burundi et le peuple chinois.

ger relations with an important supporter. Or, it could decide to take Beijing's suggestion and more actively support China's claims, but this raised its own problems for Burundi's relations with other supporters.

Burundi took neither option and did not immediately issue a follow-up to its original May 10 statement. Burundi was not alone in its silence. The Asia Maritime Transparency Initiative (2016) has compiled a list of international stances on the dispute. Thirty-one countries have actively backed China; twenty-two of these came via a joint declaration from the Arab League, while nine did so independently. Of the sixty-six countries which China said were supporting its position, only four actually publicly refuted China's assertion. These were European Union members Poland and Slovakia as well as Cambodia²⁸ and Fiji, which has had traditionally close ties to Australia. Thirty-five took the same path as Burundi and stayed silent; every one of these was a developing country. Due to its relative reliance on China, Burundi did not correct the somewhat misleading assertion that it was supporting China in a faraway territorial dispute, but neither did it actually support Beijing.

By 2018, though, Burundi's domestic economic and international diplomatic standings had deteriorated. The post-2015 recession was placing a strain on the national budget that most international donors were unwilling to address with funding increases. China was one of the few exceptions. In September 2018, Burundian Second Vice President Joseph Butore traveled to Beijing for FOCAC, the triannual China-Africa multilateral meeting. Upon his return, he had two pieces of news for reporters, as here told by Turkey's official press:

“China is our long-term partner. It has just confirmed it by offering Burundi a donation of 350 million yuan (more than 52 million dollars) to support our

²⁸Cambodia's position on the South China Sea has been the subject of a tug-of-war between China and Japan. At the moment, it is closer to China but at the time of the tribunal ruling was still maintaining a greater degree of neutrality.

development projects,” said Butore.

Bujumbura has pledged its unconditional support to China on a number of international issues, the same source added. “We have promised China our full support on various international issues, including those relating to the island of Taiwan or the South China Sea,” said the Burundian official.

According to observers, this donation is crucial when Burundi has been let go by its main partners, notably the European Union and Belgium, the latter having suspended their direct aid to the Burundian government amid “recurrent violations of human rights.”²⁹ (Chahed and Bosco, 2018)

Section 4.2.1.1 already established that the decline in aid to Burundi is here somewhat overstated: even after the departure of Belgium, aid inflows were flat rather than decreasing. Still, though, they were not enough to cover expenditures during a recession, and China’s new \$52 million in grants was badly needed. In return, Burundi offered its support on Taiwan and the South China Sea. The Taiwan part was not new—since its independence, Burundi never had an embassy in Taipei—but the South China Sea part was a meaningful change. The following month, a delegation from the Chinese People’s Political Consultative Conference visited Burundi. According to the Burundian Senate’s press release from the event, the Burundian President Senate “expressed the institution of the Burundian Senate’s support for the People’s Republic of China on the question of the South China Sea, which he considers to be an integral part of the People’s Republic of China”³⁰ (Sénat du

²⁹Translation from original French: “La Chine est notre partenaire de langue date, elle vient de le confirmer encore en offrant au Burundi un don de 350 millions de yuans (plus de 52 millions de dollars) pour appuyer nos projets de développement”, a déclaré Butore. Bujumbura a de son côté promis d’apporter son inconditionnel soutien à la Chine sur nombre de questions internationales, a ajouté la même source. « Nous avons promis à la Chine notre soutien total sur différents sujets d’ordre l’international, notamment celui portant sur l’île de Taïwan ou la Mer de Chine méridionale », a précisé le responsable burundais. Selon des observateurs ce don revêt une importance cruciale au moment où pour le Burundi s’est vu lâcher par ses principaux partenaires notamment l’Union Européenne et la Belgique, ces derniers ayant suspendu leurs aides directes au gouvernement burundais sur fond de “violations récurrentes des droits de l’homme”.

³⁰Translation from original French: Il a également manifesté le soutien de cette Institution sénatoriale à la République populaire de Chine sur la question de la Mer de Chine Méridionale qu’il considère comme une partie intégrante de la République populaire de Chine.

Burundi, 2018). This is a much stronger statement than simply wishing for peace; indeed, it is stronger than the Chinese diplomatic corps originally claimed Burundi's position to be.

Rwanda, on the other hand, publicly avoided the issue altogether and was not even on Beijing's 2016 list of countries supporting peaceful resolution.

After Burundi's change of position on the South China Sea, it supported China on two more issues: Sri Lanka and Xinjiang. Rwanda took public stances on neither.

The Sri Lankan controversy came first. During the 2000s and 2010s, China had built a billion-dollar port complex at the Sri Lankan town of Hambantota, the hometown of President Mahinda Rajapaksa. At the middle of Indian Ocean shipping lanes, the project had clear geostrategic overtones and Beijing may have hoped to gain naval access there, but these aspirations hit a stumbling block with the authoritarian-leaning Rajapaksa's surprise defeat in Sri Lanka's 2014 elections. In October 2018, less than two months after Burundi had changed its position on the South China Sea, Rajapaksa attempted to make a comeback as Prime Minister. He was appointed to the position by the sitting President, but the previous Prime Minister refused to resign, leading to a constitutional crisis centered on whether the Prime Minister could be fired.³¹ Only three countries publicly backed Rajapaksa. The first was China; the second, Burundi; and the third, Pakistan (Gupta, 2018; Press Trust of India, 2018a). Arguably China's closest strategic partner, Pakistan was itself concerned by the new Sri Lankan government's better relations with India. Burundi, though, had no clear interest in the situation apart from China's support through its own domestic crisis. Sri Lanka's Supreme Court later ruled in the existing Prime Minister's favor, but by this time Burundi had already aligned itself with an unpopular opinion on China's behalf.

³¹This episode involved distressed Chinese loans and as such will be covered in more detail in Chapter 8.

Burundi has since made a similar calculation regarding Chinese policy in Xinjiang, although it is less alone in this regard. In July 2019, a grouping of twenty-two countries filed a letter with the United Nations Human Rights Council (UNHRC) expressing concern over “arbitrary detention in large-scale places of detention, as well as widespread surveillance and restrictions, particularly targeting Uighurs and other minorities in Xinjiang” (United Nations Human Rights Council, 2019b). The letter tapped into broader international sentiment regarding the internment of Uighurs in “reeducation through labor” (劳教) camps aimed at the elimination of Islam and forced assimilation into Han Chinese culture (Ramzy and C. Buckley, 2019). The letter’s signatories, however, were not a particularly representative sample: all twenty-two were developed countries, and eighteen were in Europe. From Beijing’s perspective, the Xinjiang issue is not quite as sensitive as Taiwan—no state legally contests China’s sovereignty over Xinjiang. Still, the issue could damage China’s international reputation, and Beijing began to push back. Developing countries, which had been absent from the initial UNHCR letter, often relied on Chinese development assistance and might be convinced to see the issue in a certain way. Fifty mostly developing country governments responded by signing a letter to the UNHRC “[commending] China’s remarkable achievements in the field of human rights by adhering to the people-centered development philosophy and protecting and promoting human rights through development” and defending Chinese “counter-terrorism and deradicalization measures” in Xinjiang (United Nations Human Rights Council, 2019a). The language used mimics Beijing’s own messaging on Xinjiang as well as its emphasis on development first (Yellinek and E. Chen, 2019). Burundi signed this letter. Rwanda did not. Having violently repressed protestors in its own capital, Burundi had a shared interest in China with non-interference in internal affairs, and Beijing’s continued support through hard times (not to mention the Presidential Palace) convinced Burundi to take an internationally unpopular position. Rwanda, again,

remained neutral. In January 2020, China acknowledged this trend by referring to Burundi as an “all-weather friend,” a title which had previously been bestowed only on Pakistan, China’s closest strategic partner; and Zimbabwe, which had also lost good standing in much of the international community due to human rights concerns and economic mismanagement (Olander, [2020](#)). The announcement was made while Chinese Foreign Minister Wang Yi was in Burundi—again, a very high-profile visit for a small, frequently isolated country.

4.3 Conclusion: Small-Scale Concessional Flows

This section has established the diplomatic utility of grants and zero-interest loans. Both statistical and case study evidence extend previous studies’ findings regarding a correlation between Chinese aid and voting at the United Nations General Assembly, but only to a modest degree. The stronger findings had to do with more immediately pertinent issues. The statistical evidence shows a much larger role for the Taiwan and South China Sea issues in Chinese aid, albeit mostly in select countries whose stances are more immediately pertinent and/or could be changed. Similarly, the largest differential between China-dependent Burundi and independent Rwanda came not through United Nations voting in the aggregate but through their public stances on the South China Sea, internment camps in Xinjiang, and (perhaps less expectedly) Sri Lankan domestic politics. Focusing on an individual donor (China) allows us to observe a larger diplomatic role for aid than can usually be parsed through cross-national UN voting patterns.

The differential between grants and zero-interest loans is also confirmed by different types of evidence. Cross-national statistical evidence shows that grants are better for outreach

to diplomatic partners as well as states occupying geostrategically important locations, namely maritime chokepoints or along China's borders. At the case study level, China did not issue substantively different proportions of grants and ZILs to Burundi and Rwanda, but it did attach fewer strings to the usage of money associated with zero-interest loans, thereby mitigating some of the negative diplomatic impact of asking for remuneration.

The use of grants is found to be similar to that of other major donors. The Burundian Presidential Palace in particular is reminiscent of the type of Cold War-era favor-courying which inspired many of the founding 20th century works on aid. The role of zero-interest loans, though, had not been previously explored in the literature and reflects these instruments' unique role within the Chinese policy apparatus.

The evidence on small-scale concessional flows is generally supportive of the theory. Still, these are a small percentage³² of total Chinese outflows. Larger projects require more sustainable financing mechanisms. We next turn to two of these: freelance contracting and loans.

4.4 Appendix

Table 4.3: Grants and Zero-Interest Loans, Commitment Basis, BRI Specification

	(1) Tobit: Grants (AD)	(2) Poisson: Grants (AD)	(3) Tobit: ZIL (AD)	(4) Tobit: ZIL (SAIS)	(5) Logit: % Grants (AD)
Taiwan recognition (binary)	-5.082*** (-7.59)	-3.491*** (-4.27)	-24.95*** (-22.15)	-17.79*** (-14.91)	14.81*** (16.48)
ASEAN member, SCS	-1.312***	-0.963***	-25.37***		15.83***

Continued on next page

³²Typically, 2 percent or less.

Table 4.3: Grants and Zero-Interest Loans, Commitment Basis, BRI Specification

	(1) Tobit: Grants (AD)	(2) Poisson: Grants (AD)	(3) Tobit: ZIL (AD)	(4) Tobit: ZIL (SAIS)	(5) Logit: % Grants (AD)
disputant (binary)	(-2.72)	(-2.98)	(-12.37)		(17.96)
ASEAN member, SCS non-disputant (binary)	0.475 (1.00)	0.588* (1.94)	-0.760 (-0.30)		1.009 (0.97)
UNGA voting similarity with China (one-year lag)	1.512 (1.49)	0.966 (1.45)	0.677 (0.18)	-2.233 (-0.58)	0.186 (0.11)
BRI route (binary)	0.290 (0.83)	0.0561 (0.24)	0.881 (0.68)	-1.213 (-0.98)	-0.0540 (-0.10)
Distance from China (pop.- weighted; thousands <i>km</i>)	0.0264 (0.61)	-0.00197 (-0.06)	0.188 (1.09)	-0.356 (-1.13)	-0.0448 (-0.57)
Commodity exports to China (log; one-year lag)	0.0719 (1.33)	0.0313 (0.98)	0.396** (2.04)	0.337** (2.33)	-0.117 (-1.43)
Total imports from China (log; one-year lag)	0.670*** (2.77)	0.147 (1.12)	0.754 (0.80)	-0.585 (-0.83)	0.00747 (0.02)
Rule of Law (WGI; one-year lag)	-0.241 (-1.07)	-0.155 (-1.13)	1.570* (1.81)	0.789 (1.08)	-0.761* (-1.76)
Polity score (one-year lag)	0.0109 (0.45)	0.0117 (0.82)	-0.104 (-1.35)	0.0109 (0.15)	0.0502 (1.53)
Debt-to-GDP ratio (log; one-year lag)	-0.0683 (-0.41)	-0.0580 (-0.61)	-0.198 (-0.36)	0.238 (0.54)	0.0693 (0.30)
GDP per capita (log)	-1.708*** (-6.72)	-0.624*** (-4.35)	-3.106*** (-2.80)	-0.125 (-0.17)	0.348 (0.71)
Population (log)	-0.729*** (-3.38)	-0.161 (-1.26)	-1.186 (-1.45)	-0.320 (-0.50)	0.116 (0.35)
English language (binary)	0.875*** (2.95)	0.609*** (4.50)	1.339 (1.49)	-0.727 (-1.07)	-0.0825 (-0.26)
Time (Y2000 = 1)	0.335*** (3.26)	0.281*** (5.39)	-0.0839 (-0.26)	0.447** (2.10)	0.296* (1.95)
Time ²	-0.0138** (-2.54)	-0.0113*** (-4.34)	0.00760 (0.46)	-0.0278*** (-2.82)	-0.0137* (-1.81)
Constant	10.06*** (3.97)	2.583 (1.61)	18.29** (2.11)	12.43 (1.41)	-3.096 (-0.81)
Countries	124	124	124	49	99
Start Year	2000	2000	2000	2000	2000
End Year	2014	2014	2014	2017	2014
Observations	1499	1499	1499	712	615
Clustered SE?	✓	✓	✓	✓	✓

Continued on next page

Table 4.3: Grants and Zero-Interest Loans, Commitment Basis, BRI Specification

	(1)	(2)	(3)	(4)	(5)
	Tobit:	Poisson:	Tobit:	Tobit:	Logit:
	Grants	Grants	ZIL	ZIL	% Grants
	(AD)	(AD)	(AD)	(SAIS)	(AD)

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from AidData (AD) and SAIS-CARI (SAIS).

Chapter 5

Diplomacy and Basic Commercial Interests: Larger Projects

The previous chapter demonstrated that grants are best for diplomatic outreach or for reaching out to countries at geostrategic positions such as maritime chokepoints. Zero-interest loans are a slightly less friendly alternative. Because these generate negative economic return¹ for the donor/lender, they are generally only used for smaller projects like schools, hospitals, or government buildings. For major public works, a more financially sustainable mechanism is necessary.

This chapter covers China's three basic ways of doing this. (A fourth, the special case of resource-backed loans, is covered in Chapter 6.) First is freelance construction contracting, or firms winning bids on overseas projects without any specific support from the Chinese government. Although often subsidized by the state, Chinese firms are concerned enough

¹In the case of zero-interest loans, inflation means that recipients typically pay back less than they initially borrowed.

with their own interests that they will prioritize safer, more profitable opportunities. This may or may not overlap with state foreign policy goals; where it does not, the government must find ways to steer firm behavior. In China, this frequently means debt.

This leads us to the second modality discussed in this chapter: loans of the interest-bearing variety. Unlike zero-interest loans, which are handled by the Ministry of Commerce and other government ministries alongside grants, more conventional interest-bearing loans are issued by state-owned banks. In the developing world, the Export-Import Bank of China (Exim) and the China Development Bank (CDB) do much of the heavy lifting. These two policy banks have a mandate to bet on longer-term projects with less strict profitability requirements, meaning they are well-suited for higher-risk and/or slower-moving projects in emerging markets. Furthermore, as elaborated in Chapter 3, these banks' tied loan packages are designed to enable firms to operate in high-risk countries. So, we expect loans to fill gaps where firms would not go otherwise *and* to where the Chinese state perceives some foreign policy interest of note.

This leaves equity investment as the third option. Most large deals are to some extent leveraged with debt, but in this modality, the investor holds the debt (and associated downside risk) rather than the host country. This is clearly better for the host country (and thus for bilateral relations), but firms will feel more comfortable with it in environments of lower risk.

This chapter introduces these three tools of development finance using the same mixed-methods format as the previous chapter. It focuses how they can be used toward diplomatic and commercial export interests, which are universal (to varying degrees) to all recipient countries. So, the qualitative component of the chapter continues with the Burundian and Rwandan case studies, where geostrategic and resource interests are secondary. Geostrate-

gic and resource interests are, however, included and discussed in the statistical models for the simple reason that leaving them out would introduce bias.

I begin with a section on contract revenues comparing those directly funded by Chinese state-owned banks with those which are not. I then look at equity investments. Each of these sections opens with statistical analysis before looking at case study evidence from Burundi and Rwanda. Finally, I add concluding thoughts on implications for the theory before turning the focus to geostrategic interests and the Kazakhstani and Pakistani cases in the next chapter.

5.1 Contracts and Loans

This section analyzes systematic differences in when firms' contract revenues are explicitly backed by Chinese state-owned banks and when they are not. In Chapter 3, it was predicted that freelance contractors—that is, those without project-specific loans from Chinese banks—would serve a useful purpose for diplomatic and geostrategic purposes. In countries that recognize Taiwan or are disputants in the South China Sea, Chinese firms acting on their own can act as an informal bridge without the baggage associated with a recipient government owing money to the Chinese state or—in the case of the Taiwan issue—PRC rules against lending to countries in which the Republic of China has an embassy. Because of China's generally low costs in the construction sector and many firms' access to routine subsidized credit, they also present recipient countries with a discount relative to most competitors, and this while distancing themselves from the sometimes sensitive politics of debt. For similar reasons, they can also earn China a good name in geostrategically important countries, with or without the government in Beijing's explicit intention.

The obvious limitation to this strategy is access to financing. Countries with weaker state institutions are likely to have smaller pools of domestic savings and fewer sources of international financing. These markets are less attractive to freelancing Chinese firms, unless loans from their home government incentivize them. The Chinese government may do this for conventional commercial reasons (promoting its own firms abroad) but will also use credit to steer firms in directions important to geopolitics or resource security, especially in higher-risk countries where firms were not doing so on their own.

I test these theoretical predictions in two parts. First is statistical analysis of contracts and loans to test the hypotheses against broad patterns in the data. This will include basic analysis of geostrategic and resource security interests, although these will be explored in more depth in subsequent chapters. Second is evidence from the Burundian and Rwandan cases. These are used to establish baseline expectations for the use of freelance contracts and loans before we move to more complex cases where geostrategic interests and resource security enter the picture.

5.1.1 Quantitative Analysis

Because freelance contracting revenues are to a certain extent “dogs that didn’t bark” next to dogs that did (state-backed loans), I present the two side-by-side. This section will begin with the data and methods used to test them against each other before proceeding to results and analysis.

5.1.1.1 Data and Methods

The independent variables used in this section are identical to those introduced in the previous chapter (Section [4.1.1.1](#)). As is often the case, however, data availability for the

outcomes of interest is more of an issue. As for other parts of this dissertation, I respond by using several imperfect strategies instead of one perfect one. Both contracts and loans are tracked by multiple databases, each of which has certain strengths and weaknesses. I here introduce these data sources and how I will use them.

First, Table 5.1 will compare data from National Bureau of Statistics of China (2018) and Atkins et al. (2017) for contracts and loans, respectively. These two sets of data are unique in that they measure loan disbursements and not commitments. Most datasets track project commitments, meaning they contain up-front lump sums in the years in which projects are officially approved. However, for large projects, disbursement of funds typically takes place in smaller installments over the course of several years. Tracking these actual cash flows is relatively difficult, and only the National Bureau of Statistics of China (2018) and Atkins et al. (2017) do so. Pairing these two data sources allows us to subtract loan disbursements from contract revenues to estimate the portion of contract revenues earned on a “freelance” basis without a specific project-level loan contract from the Chinese state. An OLS regression of this estimate of freelance contract revenues (henceforth “contracts less loans”) is presented in Column 3, following Tobit regressions of contracts and loans in Columns 1 and 2, respectively.² In column 4, I add a Tobit regression of $\frac{Loans}{Contracts}$ to directly compare the two modalities of financing, although at the unfortunate cost of losing country-year observations for which no contract revenues were reported.³ In this table, I also add an interactive term between commodity exports and rule of law to test for a

²Because of discrepancies in the reported timing of disbursements between the two data sources, some country-years have negative values for contracts less loans. For example, if loan disbursements per Atkins et al. (2017) are recognized in 2011, but contract revenues per National Bureau of Statistics of China (2018) in 2012, then 2011 will have a negative value. I use an OLS regression for contracts less loans to avoid losing these observations, and because “contracts less loans” are approximately normally distributed.

³Again, because of discrepancies in the data, some years’ loan reported loan total exceeds contract revenues. I use a Tobit model instead of a logistic regression for $\frac{Loans}{Contracts}$ to keep these observations.

negative interactive effect as per H4B.

Because the SAIS data is limited to Africa, it cannot be used to effectively test the South China Sea or geostrategic variables. (Africa is home to only four countries are at maritime chokepoints, four along designated Belt and Road navigational routes, and (obviously) none at all which border China.) Indeed, the chokepoint variable was not found to be significant in the African context, and I only include models using the Belt and Road binary. While the geostrategic variables are not a primary focus of this chapter, diplomacy (including the South China Sea dispute) is. To make up for this geographic limitation, I also run the same model as in Table 5.1 on a global sample set in Table 5.2. This does not test for the hypothesized interactive effect between political risk and geostrategic interests (H3B), which along with more in-depth analysis of geostrategic interests will wait until Chapter 7.

The global sample set in Table 5.2 uses contract data from American Enterprise Institute (2019) (Columns 1 and 3) juxtaposed with loan data from Dreher, Fuchs, Parks, et al. (2018) (Columns 2 and 4). Each dataset is tested using borders and chokepoints as measures of geostrategic significance (Columns 1 and 2) as well as the BRI corridor binary (Columns 3 and 4). The global data carry both pros and cons relative to the Africa-only tests. On one hand, the global data are at a disadvantage in directly comparing loans and contracts. They use data only on a commitment basis, and comparison across the datasets leads to many mismatches in timing between contract and loan commitments. Furthermore, the AEI dataset only includes items over \$100M. Probably for this reason, it records smaller volumes of contracts than the aforementioned sources do for loans. Because of this mismatch in the data, I present these contract and loan figures side-by-side but do not attempt to extrapolate what portion of contracts per AEI are backed by debt. That being

said, the more global figures have obvious benefits for testing geographic variables related to geostrategic interests and the South China Sea.

As a robustness check, I add in the Appendix (Section 5.4) Table 5.5, which compares the AEI contract figures to loan commitment data from the SAIS (Atkins et al., 2017) and Inter-American Dialogue datasets (K. P. Gallagher and Myers, 2019), which are limited to Africa and the Western Hemisphere, respectively. The latter two are calculated on a similar basis and in many ways are sister initiatives.⁴ These data face geographic limitations but nevertheless add to our certainty regarding the findings of the other models.

5.1.1.2 Results and Analysis

Table 5.1: Contracts and Loans, Disbursement Basis, Resource Interactive Term, African Sample

	(1) Tobit: Contracts (YB)	(2) Tobit: Loans (SAIS)	(3) OLS: C - L	(4) Tobit: L/C
Taiwan recognition (binary)	-2.365*** (-5.18)	-23.38*** (-16.81)	157.4 (0.57)	-3.978*** (-12.32)
UNGA voting similarity with China (one-year lag)	4.364*** (5.26)	-1.149 (-0.30)	1540.7* (1.96)	-0.266 (-0.40)
BRI route (binary)	0.847*** (3.22)	2.340* (1.77)	-264.3 (-0.70)	0.230 (1.22)
Distance from China (pop.- weighted; thousands <i>km</i>)	0.0264 (0.81)	-0.0528 (-0.16)	-84.33 (-1.09)	-0.0111 (-0.23)
Commodity exports to China (log; one-year lag)	0.122*** (2.64)	0.0156 (0.10)	-64.57 (-1.51)	0.00196 (0.08)
Total imports from China (log; one-year lag)	0.0447 (0.27)	-0.0251 (-0.03)	-29.80 (-0.15)	0.0635 (0.50)
Rule of Law (WGI; one-year lag)	0.218 (0.37)	6.533*** (3.31)	175.8 (0.31)	0.688** (2.49)

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⁴One of this work's sources on resource-backed loans, for example, was co-authored by the director of SAIS-CARI and the director of the China-Latin America Finance Database.

Table 5.1: Contracts and Loans, Disbursement Basis, Resource Interactive Term, African Sample

	(1) Tobit: Contracts (YB)	(2) Tobit: Loans (SAIS)	(3) OLS: C - L	(4) Tobit: L/C
Rule of Law	-0.0578	-0.609***	-61.17	-0.0692***
× commodity exports	(-1.35)	(-3.84)	(-1.37)	(-3.22)
Polity score	-0.0424***	-0.0500	5.535	-0.00333
(one-year lag)	(-2.68)	(-0.67)	(0.28)	(-0.29)
Debt-to-GDP ratio	-0.104	-0.189	-160.5	-0.0170
(log; one-year lag)	(-0.73)	(-0.49)	(-1.14)	(-0.25)
GDP per capita (log)	0.0745	-0.633	468.9***	-0.165
	(0.40)	(-0.77)	(3.22)	(-1.20)
Population (log)	0.486***	-0.0532	349.2**	-0.145
	(3.34)	(-0.09)	(2.46)	(-1.38)
English language	0.996***	0.454	40.71	-0.0311
(binary)	(5.18)	(0.62)	(0.21)	(-0.28)
Time (Y2000 = 1)	0.102*	0.614**	-72.32	0.0795
	(1.85)	(1.97)	(-1.49)	(1.43)
Time ²	0.000729	-0.0256	5.424**	-0.00436
	(0.29)	(-1.64)	(2.43)	(-1.54)
Constant	-10.62***	4.443	-7337.9***	2.469*
	(-5.25)	(0.47)	(-3.66)	(1.73)
Countries	49	49	49	49
Start Year	2000	2000	2000	2000
End Year	2017	2015	2015	2015
Observations	612	621	612	605
Clustered SE?	✓	✓	✓	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from China Statistical Yearbook (YB) and SAIS-CARI (SAIS).

With respect to China's territorial claims (H1), the African sample set can only test for Taiwan (and not the South China Sea), but the results match theoretical expectations. Contractors not backed by state loans (Column 3) display neither aversion nor attraction to countries which recognize Taiwan. This is unique among China's development finance

modalities and shows that freelance contractors can serve a kind of informal outreach mechanism to countries which recognize Taiwan without actually violating China's restrictions on state finance to these countries. The results are stark: the model in Column 4 predicts that all else equal, an average country hosting a PRC embassy can expect 27.6 percent of its Chinese contracts to be backed by state loans, while this number falls to functionally zero for countries hosting ROC diplomats.

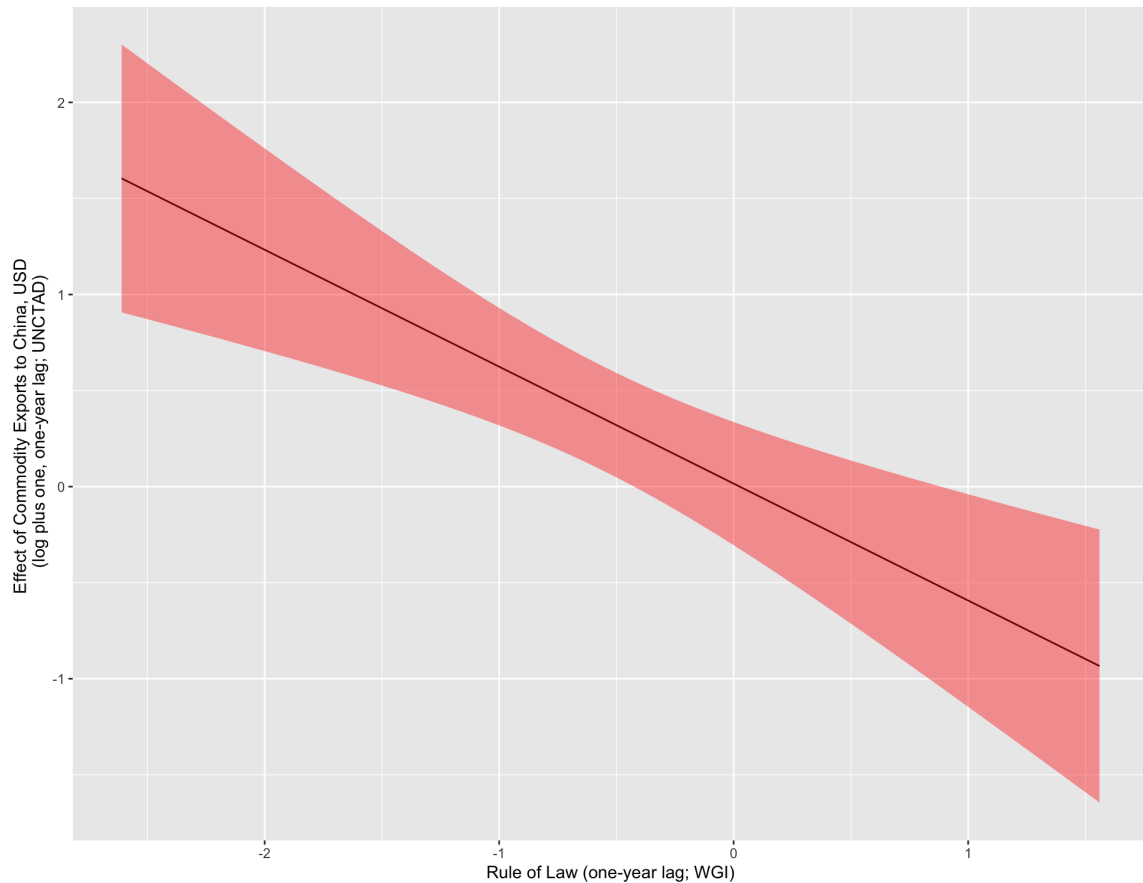
There is also a use for freelance contracting in general diplomacy. The portion of contract revenues not backed by Chinese state loans (Column 3) is positively associated with UNGA voting alignment, while revenues backed by state loans (Column 2) are not. The diplomatic role of freelance contracts is only borderline statistically significant but still substantively important: a country at the 75th percentile for UNGA voting alignment will on average source just over double the volume of freelance contract revenues as a country at the 25th percentile.⁵

Contrary to theoretical predictions, the results do not show any difference in effects of the chokepoint binary on freelance contracts versus loans. However, because the African sample set in Table 5.1 is of limited use in assessing the relevance of geostrategic importance (H3), I defer more in-depth discussion of geostrategy until after the results of a global sample set are presented in 7.1. I instead turn to the strength of the African sample set: enough detail in the data to separate contract revenues backed by Chinese state loans from those which are earned on a freelance basis. This is useful for testing commercial interests (H4) at a finer level of granularity.

It was predicted that there would be a negative interactive effect between commercial interests and governance risk. Table 5.1 confirms this prediction. Loans (Column 2) display the

⁵Based on Column 3 of Table 5.1, holding all other independent variables to mean.

Figure 5.1: Effect of $\text{Ln}(\text{Commodity Exports to China} + 1)$ on $\text{Ln}(\text{Chinese Loans} + 1)$, Varying Rule of Law



Based on model of loans per SAIS-CARI (Atkins et al., 2017) in Table 5.1, Column 2. Assuming non-recognition of Taiwan. All other variables set to mean. Shaded area is 95% confidence interval.

predicted negative interactive effect; freelance contracts (Column 3) do not. Again, China is using debt to encourage firms to take on higher levels of risk in the name of a broader national interest. Figure 5.1 displays this relationship as per the model in Column 2 of Table 5.1.

Commodities are only a clear draw for lenders in countries with weaker rule of law and have no effect on lenders in better-governed states. The curve pictured in Figure 5.1 shows a statistically significant ($p = .05$) positive relationship of commodity exports on resource-

backed loans above a rule of law score of -0.439 (near Mali, whose strong bureaucracy in the capital region coexists uneasily with insurgencies in the Saharan north); an effect of zero at a rule of law score of 0.026 (near Ghana, above the median in the region but around the middle of the global distribution); and a negative effect above 0.883 (the tax haven and financial hub of Mauritius). Debt is designed for places with higher political risk.

In practice, this means that debt will constitute a greater share of overall activity in less stable environments but will take a backseat to freelance contracting (and equity) elsewhere. The model in Column 4 of Table 5.1 conveys this directly, showing an interactive effect of resource motives and governance on the *share* of contracts backed by loans. It projects that in a country at the 75th percentile in terms of commodity exports to China, a rise from the 25th to 75th percentile for rule of law is associated with a decrease from 38.0 percent to 25.5 percent of contracts being backed by Chinese state loans. Tied loan contracts can push Chinese firms into higher-risk environments but can also be diplomatically tricky, and bank credit is a finite (if vast) resource. The Chinese government is more likely to use loans when firms are not addressing some issue of national interest on their own. This interactive effect is also corroborated using two different data sources in Table 5.5 in the Appendix, although these only show total contracts and loans side-by-side and allow for less fine-tuned testing of different types of contract revenues than the main results here.

The results for the detailed African data generally support the hypotheses, but with blind spots for the South China Sea variables and some geostrategic indicators. Table 5.2 turns to a global sample set. For reasons discussed in the “Data and Methods” section (Section 5.1.1.1), it is difficult to match contract revenue and loan data outside of Africa, and so the global sample loses some detail, but it is better at assessing the aforementioned (mostly) non-African issues.

Table 5.2: Contracts and Loans, Commitment Basis, Resource Interactive Term, Global Sample

	(1) Tobit: Contracts (AEI)	(2) Tobit: Loans (AD)	(3) Tobit: Contracts (AEI)	(4) Tobit: Loans (AD)
Taiwan recognition (binary)	-6.330*** (-4.87)	-29.63*** (-21.80)	-6.305*** (-4.72)	-29.20*** (-21.89)
ASEAN member, SCS disputant (binary)	1.158 (0.67)	-2.230* (-1.93)	1.507 (0.89)	-1.057 (-0.82)
ASEAN member, SCS non-disputant (binary)	1.309 (0.80)	1.702 (0.87)	0.781 (0.49)	0.814 (0.47)
UNGA voting similarity with China (one-year lag)	9.304*** (2.61)	10.50*** (2.68)	8.098** (2.43)	7.184** (2.14)
Border with China (binary)	0.102 (0.08)	1.838 (1.55)		
Chokepoint (binary)	1.131 (0.93)	-0.782 (-0.76)		
BRI route (binary)			2.120** (2.09)	4.187*** (4.69)
Distance from China (pop.- weighted; thousands <i>km</i>)	-0.0556 (-0.42)	0.302** (2.11)	0.0548 (0.50)	0.504*** (4.79)
Commodity exports to China (log; one-year lag)	0.0985 (0.55)	-0.0334 (-0.20)	0.102 (0.55)	-0.0805 (-0.52)
Total imports from China (log; one-year lag)	-0.0646 (-0.08)	1.978** (2.39)	-0.107 (-0.15)	1.671** (2.19)
Rule of Law (WGI; one-year lag)	4.026** (2.01)	2.516 (1.06)	4.662** (2.31)	4.270* (1.93)
Rule of Law × commodity exports	-0.429*** (-2.76)	-0.401** (-2.21)	-0.466*** (-2.91)	-0.526*** (-3.06)
Polity score (one-year lag)	-0.112* (-1.68)	-0.0586 (-0.85)	-0.113* (-1.76)	-0.0542 (-0.85)
Debt-to-GDP ratio (log; one-year lag)	-0.332 (-0.71)	-0.808* (-1.82)	-0.470 (-1.03)	-0.907** (-2.38)
GDP per capita (log)	0.361 (0.48)	-2.366*** (-3.03)	0.239 (0.34)	-2.547*** (-3.36)
Population (log)	1.608** (2.53)	-1.023 (-1.50)	1.505** (2.57)	-1.043 (-1.61)
English language (binary)	1.498** (1.97)	1.556** (2.09)	1.572** (2.21)	1.849*** (2.76)

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Table 5.2: Contracts and Loans, Commitment Basis, Resource Interactive Term, Global Sample

	(1) Tobit: Contracts (AEI)	(2) Tobit: Loans (AD)	(3) Tobit: Contracts (AEI)	(4) Tobit: Loans (AD)
Time (Y2000 = 1)	1.591*** (3.61)	0.757*** (2.89)	1.604*** (3.55)	0.889*** (3.43)
Time ²	-0.0431** (-2.47)	-0.0317** (-2.28)	-0.0438** (-2.45)	-0.0366*** (-2.69)
Constant	-49.68*** (-6.80)	-10.86 (-1.51)	-46.30*** (-6.81)	-4.168 (-0.64)
Countries	125	124	125	124
Start Year	2005	2000	2005	2000
End Year	2017	2014	2017	2014
Observations	1546	1499	1546	1499
Clustered SE?	✓	✓	✓	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from American Enterprise Institute (AEI) and AidData (AD).

The global sample set provides partial support for the diplomatic hypotheses (H1 and H2). Taiwan is, again, the strongest predictor: the coefficients for loans are much more negative than for contracts. Because the global data are less well-suited for comparison between contracts and loans, this is more limited evidence than for the African sample, where contracts and loans could be compared directly. However, it is consistent with the hypotheses. The results for the ASEAN variables are weaker. According to the model in Column 2, state loans do avoid South China Sea disputants, but this finding loses statistical significance in Column 4, when location along BRI corridors is used as an indicator of geostrategic significance instead of the border and chokepoint binaries. In all specifications, freelance contractors have no particular prejudice against disputants. Again, the South China Sea factors in to Chinese decision-making but is simply less important than Taiwan. Most puzzlingly,

both contracts and loans are highly positively associated with United Nations voting alignment. As shown in the previous table, this makes sense for the portion of contracts not backed by loans, but debt is generally diplomatically contentious. This is probably a quirk⁶ of the AidData figures for loans: the same model run on SAIS-CARI (Table 5.1) and Inter-American Dialogue (Table 5.5, in the Appendix) loan data shows a null relationship with UNGA voting alignment. So, we again find that the Taiwan issue is a strong predictor, the South China Sea issue a middling one, and UNGA voting the weakest of the three.

The global data also repeat the findings of the African sample (Table 5.1) that Belt and Road countries receive more of both contracts and loans. To be precise, the models in Column 3 and Column 4 of Table 5.2 would predict that setting all other variables to mean, location along a designated Belt and Road route is associated with a 117.9 percent increase in contract revenues and a 429.2 percent increase in loans. What's more, neither border security nor location along a chokepoint is a predictor of contracts or loans. On its surface, this might seem to run contrary to theoretical predictions. According to the theory, equity, freelance contracting, and debt can be used to build geostrategic projects, but the former two are typically preferable for bilateral relations. Equity is able to commit to a long-term presence, lowers the recipient's debt burden, and provides actual funding; freelance contracting also avoids debt, albeit with less of a clear long-term commitment and without any direct funding. This would imply a positive correlation between geostrategic interests and equity; an ambivalent one for freelance contracting; and a negative one for debt, which can

⁶One potential explanation for this oddity might have to do with how the data was compiled. AidData's figures are mostly based on open-source press releases, meaning they are much more likely to include projects which host governments see as wins for public relations and choose to disclose than they are to include controversial or non-performing loans which could be irritants to bilateral relations and which governments might choose to conceal. Bräutigam (2013) points out that AidData's figures for some countries tend to be inflated where local leaders publicly overstate the value of deals in order to claim credit. Credit claiming of this type is probably positively associated with diplomatic alignment, potentially leading to bias.

build strategic throughways but in the process may complicate relations with host countries on whom China will always rely for access.⁷ The predictions for contracts and loans do not seem to pan out well, but for one important factor: interactions between geostrategic variables and governance quality. H3B held that geostrategically important countries with lower governance quality would receive tougher terms than ones with higher governance quality, and it is difficult to assess the overall relationship between geostrategic interests and financing terms without accounting for this interactive effect. Chapter 7 will test this interactive term, at which point we can be surer of the results for geostrategic variables.

Finally, before moving on to the next section, the control variables produced one significant if unanticipated finding. Across this sections' various models, contractors are typically more responsive to the gravity controls of GDP per capita and population. The correlation with GDP per capita is positive for "contracts less loans" as estimated in Tables 5.1, but is either null or negative for all estimates of loans. Similarly, population is a positive predictor of contracts but not loans. (Equity responded to population but not income per capita.) This does not provide direct evidence toward any of the hypotheses, but it does provide evidence that contractors operate more according to market incentives while lenders can be convinced to prioritize other factors. This is a causal process observation in favor of mechanisms underlying the theory (Brady and Collier, 2004).

5.1.2 Contracts and Loans in Burundi and Rwanda

China has few geostrategic or natural resource interests in Burundi and Rwanda, so its strategy is driven more by diplomatic considerations and a conventional balancing of commercial risk against reward. Chapter 4 demonstrated that China has used aid to crystalize

⁷See Table 3.7, Chapter 3 for original theoretical predictions.

shared views on human rights into a close diplomatic relationship with Burundi, but has had less success doing so in Rwanda, which maintains a more diversified foreign economic policy. In this section, a similar pattern exists for larger projects. In the absence of major national interests, Chinese policy banks have not extended all that much credit to either country. However, Chinese firms have been highly active as contractors in Rwanda, largely using funding from multilateral organizations like the World Bank. Relatively few Chinese firms, on the other hand, have found business opportunities in Burundi. Burundi's higher political risk has an effect here, both by discouraging Chinese businesses themselves and by limiting the country's access to external financing for projects with or without Chinese participation. This section starts by looking in turn at freelance contracts and loans in Burundi and Rwanda. The Rwanda subsection opens with a discussion of road construction, a major focal point for Rwanda's development strategy and China's participation therein.

5.1.2.1 Burundi

Freelance Contracts Atypically for most countries of the world, Burundi has not hosted very many Chinese-built construction projects since 2000.⁸ The official documentation of the Chinese Embassy in Burundi on bilateral relations makes many references to older, Cold War-era projects such as the 1972 Bujumbura-Nile Road and the 1979 construction of a textile factory, but references to more recent years are few and far between (Embassy of the People's Republic of China in Burundi 【中华人民共和国驻布隆迪共和国大使馆】, 2014a).⁹ Exceptions mostly happen where funding is available from the local government, as in the case of one small government building, or (more often) multilateral organizations,

⁸I do not here discuss a hydroelectric project built on the Rwandan-Tanzanian border but intended to supply electricity to Burundi as well and funded partially by a World Bank grant to Burundi. Because this project is being built partially on Rwandan soil and Rwanda is paying for part of it via borrowing, I discuss it in Section 5.1.2.2 on freelance contracts in Rwanda.

⁹See also Flash-Infor (1974, p. 12) and International Economic Cooperation [国际经济合作] (1988).

which are more interested in social sector projects. In one instance, a Chinese consortium attempted to build a larger hydroelectric project with Burundian government funding, but this has stalled, demonstrating the limits of freelance contracting in a country like Burundi. I cover, in order: 1) the government building; 2) social sector and infrastructure projects backed by multilateral development banks; and 3) the stalled dam.

In the government sector, the China Communications Construction Company (CCCC) in 2010 won an \$11.0 million World Bank contract to build a new building for the Burundian Ministry of Finance (World Bank, 2018b). This could be useful for diplomatic outreach, but less so than the Presidential Palace discussed in Chapter 4. The Palace was 1) funded by China directly on a *grant* basis; and 2) went directly to the head of government in a centralized system; and 3) occurred after the 2015 protests.

Other Chinese-built projects were concentrated in the social sectors and road-building, in keeping with the priorities of the projects' World Bank and African Development Bank funders. A pair of water and sewage projects were also funded by the World Bank but carried out by Chinese firms. First, between 2011 and 2013, China New Era International earned \$20.2 million expanding the capital city of Bujumbura's water supply system.¹⁰ Then, in 2017, the China Henan International Cooperation Group (Chico) did \$21.2 million of work on a drainage system in Bujumbura (World Bank, 2016, 2018b, 2019a). Chinese firms did find room to participate, but here within the constraints of the World Bank's focus on social sector improvement and only toward Chinese foreign policy goals in that their presence on the ground could reflect well on Beijing. Unlike for Exim or CDB loans, they also did not necessarily receive the majority of contract value: Chico's \$21.2 million was indeed the majority of a \$25 million budget, but China New Era's \$20.2 million was a mere

¹⁰This was actually two contracts, one for \$10.3 million and the other for \$9.9 million. See World Bank (2011, 2018b).

plurality of a \$50 million project.

Three roads tell a similar story, one funded by the World Bank and the other two by the African Development Bank (AfDB), a regional multilateral organization. In 2013, Chico earned \$9.2 million of a \$51.5 million World Bank road construction contract, but in keeping with the World Bank's frequent use of multi-source procurement, this was again as a minority participant (World Bank, 2018b). In 2014, Stecol, a Sinohydro subsidiary, was paid \$29 million to build a road running on a north-south axis along the country's western edge (Xinhua, 2017a). This enabled trade both with Rwanda to the north and Tanzania to the south, a point made clear by an official press release from the Chinese Embassy in Burundi (Embassy of the People's Republic of China in Burundi 【中华人民共和国驻布隆迪共和国大使馆】, 2014b). Even if China was not actually funding the work, its being done by a Chinese firm offered an opportunity for public relations, and this without direct exposure to the risk of friction over debt which was in this instance owed to the African Development Bank. The same goes for a third road built in 2018 by Hunan Construction Engineering¹¹ for \$11.2 million out of \$27.6 million in total AfDB disbursements (African Development Bank, 2020b).

While the above projects show the opportunities available to Chinese (and other) firms offered by multilateral development bank funding, another shows the limitations posed by its absence. The idea of a hydroelectric dam at Mpanda had circulated for years—the World Bank undertook a feasibility study in 1997, and the Nigerian and Indian governments were in talks about funding it at different points during the 2000s and 2010s (hydro4Africa, 2006; Direction Générale de l'Énergie et de l'Eau, 2011, p. 133). This did not come to pass, however, and by 2014 the Burundian government was planning to move forward using funds

¹¹The same firm built Burundi's Presidential Palace. See Hu Xinsong [胡信松], Deng Jianying [邓建英] and He Lijie [何力杰] (2019).

from its own budget. Under this new arrangement, a consortium of China New Era and the China Geo-Engineering Corporation (CGC) were slated to build the dam (Economic and Commercial Office of the Embassy of the People's Republic of China in Burundi 【中华人民共和国驻布隆迪共和国大使馆经济商务处】 , 2014; World Bank, 2019c, p. 14). The dam's budget has fluctuated over time. A 2008 World Bank study put the estimated cost at \$26.5 million, but a more recent (2015) Burundian government document raised this to \$44.5 million (Agence burundaise de Promotion des Investissements, 2015; World Bank, 2008). Most recently, the Burundian government was looking for an outside investor to bankroll a \$9 million contribution from the 2019-20 budget alone (Kuriyo, 2019). The project has dragged on for years, but without any reliable external financing, completion remains uncertain. It is no wonder that there are not more instances of Chinese firms building projects in Burundi without the backing of a multilateral development bank.

Of course, firms could try to secure funding from the home country, but in Burundi, the Chinese government has only occasionally obliged. I now turn to this topic.

Loans Putting aside the Ministry of Commerce-run zero-interest loans discussed in the previous chapter, Chinese lending to Burundi has focused on a single hydroelectric project and telecommunications. Like the stalled dam at Mpanda, the ongoing Ruzibazi hydroelectric project started in 2014, but in this case with the benefit of \$49 million in credit from China Exim (Atkins et al., 2017). Estimates of the project's total cost have ranged from \$60 million per a 2015 African Development Bank report to \$70 million per a 2019 official Chinese press article (African Development Bank, 2015; J. Omondi, 2019). This leaves part of the budget to be co-financed by the local government or another source; this part of the arrangement remains somewhat unclear. In any event, construction is continuing as planned, demonstrating that China *can* overcome the high risks of a market like Burundi

by extending taxpayer-backed credit to a Chinese firm—in this case, Sinohydro is the primary builder. However, it is less likely to do so in Burundi than in a similarly risky country in which the government has some other major concern, usually geopolitics or resource security.

Apart from this small dam, the remainder of Chinese lending to Burundi is concentrated in the telecommunications sector. Section 4.2.1.4 of the previous chapter discussed the role of telecoms in Chinese diplomacy in the developing world. “National champions” Huawei and ZTE are heavily subsidized by the state. This is not done in the name of development finance so much as to gain leadership in important emerging technologies, but a byproduct is that Huawei and ZTE can sell to lower-income markets at more palatable prices than those offered by mostly European¹² competitors. In the process, Huawei and ZTE gain market share in higher-growth countries and likely lock in future sales of parts and maintenance for years to come. Section 4.2.1.4 of the previous chapter discussed a 2011 \$15 million half-grant, half-loan initiative to build a broadband network in Bujumbura, and this was not an isolated incident. In 2004, Exim funded 85 percent of a \$9.31 million initiative to expand Burundi’s 2G mobile network; the work was done by Huawei (Atkins et al., 2017; Dreher, Fuchs, Parks, et al., 2018). Then, in 2017, Huawei extended a \$30 million loan to the Burundian government to upgrade the network using newer technology (Comms Update, 2017). Press sources indicate that Huawei made the loan itself; this type of arrangement is uncommon and would indicate that Huawei sees the value in making a long-term upfront investment in a country where it can secure a high market share for the indefinite future. In any event, Huawei’s money came either directly from a project-specific Chinese policy bank loan or indirectly from the Chinese state via its routine subsidization.

¹²The two main non-Chinese firms in the current 5G race are Sweden’s Ericsson and Finland’s Nokia, although the field of competition was more crowded for prior generations of telecoms technology.

Either way, Huawei had an incentive not just to look out for its own corporate interests but also the government's diplomatic concerns which were no doubt boosted by a low-cost, high-visibility upgrade of this nature.

China lent money to Burundi only on occasion, and often in an area of comparative advantage (telecoms) with implicit subsidies or explicit grants built in. Chinese firms had some success finding business opportunities there on their own, but within the narrow confines of projects being funded by multilateral development banks working to alleviate poverty despite concerns about local governance. Rwanda has not received drastically more loans from China than has Burundi, but it has hosted many more Chinese contractors.

5.1.2.2 Rwanda

Like Burundi, Rwanda is not home to major geostrategic or resource interests for the government Beijing and has only received a small volume of direct loans. It has, however, proven to be a more favorable environment for Chinese contractors. A large portion of China's activity in Rwanda has been concentrated in road construction, a major priority for the government's development strategy. Some road projects have been directly funded by China Exim, but the majority use financing from third-party organizations like the African Development Bank. These roads have become a focal point of discourse surrounding China's presence in Rwanda for both proponents of Chinese diplomacy and critics thereof, and much previous analysis of them has been tinted by ideological considerations of one stripe or another. I instead use hard data on road construction and repair to conduct within-sector analysis comparing contract revenues earned on a freelance basis to those backed by tied loan packages. Systematic differences between building one highway and another are inherently smaller than between a highway and, for example, a dam or a hospital. Isolating

ing analysis of Rwanda's road projects is a natural opportunity to filter out miscellaneous sector-specific factors. After this, I include two sections on a more diversified assortment of contract-based and loan-backed projects, respectively, in other sectors. The projects in these sections are less directly to one another, but they do allow for within-country analysis based on an internal cleavage in Rwanda's political economy. Parts of the Rwandan economy are heavily influenced by firms connected to the ruling party or military, introducing a greater degree of political risk for projects in which they are involved. I use this intra-national variation in risk to illustrate how Chinese companies and government organizations respond.

Roads Road construction and improvement are an important part of Rwanda's development strategy. Africa in general has a relatively low population density spread across sometimes difficult terrain, meaning better overland connectivity has always been a challenge for both commerce and exertion of state power.¹³ As a small, relatively dense state, Rwanda has it easier than most in terms of domestic connectivity, but as a landlocked state is more reliant than most on overland international trade. The building (and upgrading) of roads is thus a focus for the Rwandan government and indeed for many others in the region. With a low-cost construction sector experienced in building highway networks at home, China has been heavily involved here. During a 2018 state visit to Rwanda, Chinese President Xi Jinping stated that "China has become Rwanda's largest trading partner and largest construction contractor [...] Chinese companies have repaired or built 70 percent of Rwanda's roads and have become household names"¹⁴ (Xi Jinping [习近平], 2018). The "70 percent" figure is obviously impressively high. Xi stated that Chinese firms

¹³See Herbst (2014).

¹⁴Author's translation from original Chinese: 中国已成为卢旺达第一大贸易伙伴和第一大工程承包方。 [...] 中国公司修建的公路占卢旺达国家公路总里程70%，已成为家喻户晓的明星企业。

had “repaired or built” 70 percent of Rwanda’s roads, but did not say that they were all Chinese-funded. When asked in an interview about this later that year, Rwandan President Paul Kagame stated that “China is active in Rwanda, but not in an inappropriate way. The new roads in Rwanda are largely built with European money. Sometimes there are Chinese subcontractors.” (Ultsch, 2018) This was a high-enough profile issue that the President was commenting publicly on it, and he clearly understood the difference between Chinese contractors and lenders. Indeed, Xi during his visit to Rwanda also mentioned that Chinese firms were Rwandan market leaders in construction contract revenues. Chinese contractors without Chinese funding were being mentioned as a selling point during a major diplomatic visit, and this to a country whose size would usually preclude attention from leaders of great powers.

Not all, however, picked up on this distinction. An article the following year in the *Atlantic* held that these roads (and other projects) were pushing Rwanda into a “debt trap” in which it could no longer afford to meet its debt payments (Paduano, 2019). The Rwandan Ministry of Finance and Economic Planning responded to the article, writing that:

Rwanda enjoys good cooperation with China. However, the size of Chinese investment in Rwanda cited in the article is inaccurate. It is not true that ‘70% of Rwandan roads have been financed and built by Chinese’. Rwandan roads have been financed from diverse sources, the major ones being the World Bank, the African Development Bank, the Gulf, China, and Japan. Chinese loans to Rwanda represent less than 5% of Rwanda’s total debt. (Ministry of Economy and Finance of Rwanda, 2019a)

At this point, it is clear that the Chinese government sees its cheap construction contractors as a diplomatic asset, even if individual contracts are not being micro-managed by state authorities in faraway Beijing. The Rwandan leadership and civil service have also made it clear that they understand this. However, none of the parties involved refuted the claim

that Chinese contractors had built 70 percent of Rwanda's roads. The Rwandan Ministry of Finance did specify that China holds less than 5 percent of total Rwandan debt, but this was across all sectors and not specific to roads. I here use publicly available data to assess actual differences between freelance contracts and loans. Table 5.3 lists all known road construction or rehabilitation projects undertaken by Chinese firms in Rwanda. Readers should be aware that available data from 2016 onward is of high quality, but earlier years are spottier.¹⁵

¹⁵Fortunately, there is no reason to think that earlier years are systematically different. If anything, Rwanda's improving market reputation over time would have put more pressure on China firms to loosen loan conditions in later years, meaning any observed differential between tougher Chinese loans and more concessional ones from multilateral development banks would have been larger in earlier years than later.

Table 5.3: Known Chinese-Built Road Projects in Rwanda, 2004-2020

Name	Year	Contractor	Length (km)	Contract value (mil. USD)	External Funding
Ginania-Textile Mill Road	2004	CRBC	2.6		China Exim
Kigali Urban Roads	2009	CRBC	36	35.9	China Exim
Kigali-Ruhengeli Rehabilitation	2009	Chico	83.1	57.6	World Bank
Ngororero-Mukamira Rehabilitation	2009	CRBC	24.7	40.6	China Exim
Crete Congo/Nil-Ntendezi	2010	CRBC	30	18.2	AfDB
Cyangugu (Rusizi)-Ntendezi-Mwityazo	2010	CRBC	50	50.2	AfDB (grant)
Bugarama-Ruhwa Rehabilitation	2010	CRBC	0.02	1.6	AfDB
Kivu-Belt Lot 4 & 5	2013	CRBC	66		China Exim
Kivu-Belt Lot 7	2015	Hunan Road and Bridge	48		AfDB (loan and grant)
Base-Rukumo Upgrading	2016	Chico	51	19.2	AfDB
Gabiro-Kayonza Rehabilitation	2016	Hunan Road and Bridge	56	29.3	AfDB
Kivu-Belt Lot 6	2017	Stecol and Hori-zon	24.1		BADEA, KFAED, SFD, OFID

Continued on next page

Table 5.3: Known Chinese-Built Road Projects in Rwanda, 2004-2020

Name	Year	Contractor	Length (km)	Contract value (mil. USD)	External Funding
Kagitumba-Bugaragara-Gabiro Rehabilitation	2017	Stecol	60	32.7	EU-AITF, AfDB
Kayonza-Rusumo Rehabilitation (Lot 3)	2017	CRBC and NPD Ltd.	92	50.7	AfDB, JICA
Huye-Kitabi Rehabilitation	2017	CRBC	53	25.8	BADEA, SFD, OFID
Akagera-Bugesera International Airport and Sonatube-Gahanga-Akagera Bridge	2018	CRBC	29.16	54.0	China Exim
Nyagatare-Rukomo Upgrading	2018	Stecol and Hori-zon	73		BADEA, SFD, OFID, KFAED, Abu Dhabi Fund
Nyagatare Feeder Roads, 2 lots	2019	Chico	55		
Kibugabuga Shinga-Gasoro	2019	Hunan Road and Bridge	66.55	96.9	World Bank
Prince House-Giporoso-Masaka	2019		10		China Mofcomm (grant)
Kabarore-Kabeza-Marimba-Nyabicwamba	2019	Chico	19		World Bank
Huye-Kibeho-Ngoma/Munini Upgrading	2019	Sinohydro	66	130.0	China Exim

Continued on next page

Table 5.3: Known Chinese-Built Road Projects in Rwanda, 2004-2020

Name	Year	Contractor	Length (km)	Contract value (mil. USD)	External Funding
Kigali Urban Roads	2020	CRBC	54.56	60.0	China Exim
Total			1,049.79	702.7	

Sources: African Development Bank (2020b), American Enterprise Institute (2019), Atkins et al. (2017), China Road & Bridge Corporation (2017, 2018), Dreher, Fuchs, Parks, et al. (2018), Economic and Commercial Office of the Embassy of the People's Republic of China in Rwanda 【中华人民共和国驻卢旺达共和国大使馆经济商务处】 (2019), Kagire (2019), Ministry of Economy and Finance of Rwanda (2019b), Ministry of Trade and Industry of Rwanda (2019), Ngabonziza (2019a), Rwanda Transport Development Agency (2012, 2017, 2018, 2019, 2020), and World Bank (2017a, 2020).

Available data back the Rwandan government's assertion that most of Chinese-built projects use third-party funding. Contract value is not available for all items, but if we use length of road as a rough proxy—an imperfect one given differences in terrain and road type—only 27.5 percent of the Chinese-built projects in Table 5.3 were directly funded by China. The Chinese government is not even the leading funder of Chinese-built road projects. This distinction belongs to the African Development Bank (36.9 percent of road by length), and the World Bank (16.1 percent) and Arab Bank for Economic Development in Africa (BADEA; 14.3 percent) were not far behind. Because multilateral development organizations such as these maintain strong presences in Rwanda, it is simply unnecessary for China Exim to expend major resources to enable Chinese firms to do business there. Instead, they by most accounts win a majority of multinational lenders' bids based on their own experience and subsidization through non-project specific cheap credit at home.

There are, however, systematic ways in which Chinese-funded projects are carried out differently from others.¹⁶ These are 1) cooperation with local partners; 2) higher costs due to non-competitive tendering; and 3) differential distribution across urban and rural areas.

The Rwandan government, like any in its position, would like to maximize its firms' shares of contract value, but this can be a difficult struggle when up against better-funded competitors from overseas. There were three instances in which local firms were included as partners on contracts, and none of the three were Chinese-funded. Exim rules would make such an arrangement impossible unless the local partners were minority subcontractors.

The identity of these firms also matters. Two of the contracts went to the Horizon Group,

¹⁶This does not include potential Chinese interest in better access to Congolese minerals. The data do include several projects leading to the DRC border, but these were mostly funded by the African Development Bank. China is not the only party interested in eastern Congo—humanitarian organizations, Western mining firms, and United Nations peacekeepers all share a desire for better transportation there.

a subsidiary of the Ministry of Defence. The third went to NPD, a subsidiary of an investment company owned by the ruling Rwandan Patriotic Front. These are both major construction firms in Rwanda and their participation in major contracts is not unusual, but China nevertheless missed an opportunity to gain favor with people well-connected to the ruling regime due to tied procurement rules.¹⁷ China in effect sacrificed diplomatic interests because of tough, commercially oriented loan terms. Rwanda, for its part, has an incentive to opt for multilateral-backed projects over Chinese ones.

There are also more direct financial ramifications of tied procurement for Rwanda. Roads funded by China Exim cost on average approximately \$1,523,000 million per kilometer, as opposed to \$706,000 for all others.¹⁸ One Rwandan data source covering the years 2009 and 2010 listed both China Exim-funded projects from that time period as using “single source” procurement. Of the non-Chinese-funded projects, only one used this modality, and this was a very small (0.02 km) bridge. The closed procurement process required by Exim inhibits competition and enables firms to charge higher prices. This is a positive for Chinese commercial interests in that corporate revenues benefit,¹⁹ but it is no wonder that Rwanda uses this option only sparingly. Indeed, it is largely the same Chinese firms doing similar²⁰ work for less money when backed by multilateral organizations.

Third, Rwanda appears to have opted for more expensive Chinese debt mostly in and

¹⁷Party- and military-connected firms are influential in Rwanda. These firms have a particularly strong presence in real estate investment and will be discussed in the next section on freelance contracts in Rwandan sectors other than roads.

¹⁸This analysis was inspired by and follows the methodology used by Garzón and D. Castro (2018) and Villavicencio (2015) comparing tied Chinese projects with others in the Ecuadorian power sector. See also Namubiru (2018) for a related discussion of roads in Uganda.

¹⁹There is an argument to be made that this could be a negative for Chinese business in the long run if the accrued debt is unsustainable. This issue will be addressed in the conclusion.

²⁰It is possible that the Exim-backed projects are somehow technically more difficult, but this seems unlikely. Many are more concentrated in and around Kigali, an easier (and more profitable) environment than rural Africa, whereas as the multilaterals often focus on access to rural areas and/or cross-border trade.

around Kigali. China Exim has funded two general “Kigali” road projects as well as an airport highway and the Kigali-area Gininia-Textile Mill project. Given many multilaterals’ focus on improved access for poor, rural areas, Rwanda may have been using Chinese credit to fill an urban niche in which other funders were less interested. Tougher terms—in this case, tied procurement—can be good for Chinese business but bad for relations with the host country, which in some cases may have better options on the table. Rwanda generally has more cost-effective options, with the possible exception of urban road upgrading.

This divide between third party-financed deals and Chinese-financed deals exists in other areas, although no other sector in Rwanda²¹ has enough of a critical mass of Chinese-built projects to enable the type of within-sector analysis conducted here for roads. I here turn to other freelance contracts in Rwanda, and from there move to loans.

Freelance Contracts Most Chinese firms building projects in Rwanda are not directly backed by state-owned bank loans. However, they have become highly competitive in open contests, especially when they receive cheap credit from the home country. This could be construed as both a positive and a negative to Rwanda. On the negative side of the ledger are local competitors. As one official of the Rwandan Association of Engineers put it, “How can you compete with a Chinese company bidding with an assurance of a loan that comes with a 3% interest rate from its home bank when your bank wants an interest rate ranging between 18-20%?” (Ngabonziza, 2019c). At the same time, subsidization is a positive to buyers of construction services.

The net diplomatic effect of these savings to Rwandan customers is contingent upon features of Rwanda’s domestic political economy which were not directly salient to the smaller

²¹These types of comparisons are easier to make in larger markets with a higher volume of deals. So, they will be made for the larger countries featured in Chapters 7 and 6.

aid projects discussed in Chapter 4 but will be introduced here. Namely, Chinese companies' participation in projects sponsored by firms connected to the Rwandan party-state regime have frequently encountered serious problems in implementation. Projects with less direct involvement from the host government have, perhaps counterintuitively, generated more unambiguous benefits for bilateral relations. Rwandan regime-connected firms' presence or absence in a given deal constitutes an important source of subnational variation in political risk which can be used to test theoretical predictions. I here introduce the role of party- and military-connected firms in the Rwandan political economy before analyzing Chinese contracts in which they were sometimes involved.

Firms owned by the ruling Rwandan Patriotic Front (RPF) or the Rwandan military play a large role in the Rwandan economy. Gökgür (2012) sees them as running counter to the common narrative of Rwanda as adhering to Bretton Woods-inspired standards of “good governance” and rule of law. Privatization of many Rwandan firms in the post-genocide era, he writes, was carried out in a relatively haphazard way, allowing many elites to capture privileged positions at bargain prices. Access to these rents is one of the regime's levers over party cadres²² and military officers whose loyalty is critical to regime stability. Because of their role in maintaining regime stability, Gökgür (2012, p. 16) writes that party- and military-owned firms “receive and enjoy fully state-granted privileges through their close fiscal, financial and non-financial ties to the state in procurement contracts, as well as in their ability to access loans from commercial banks. Furthermore, some of these banks are majority or minority state-owned.” There is a rough parallel with the role of well-connected state-owned firms in the Chinese political economy, complete with some

²²Analysts of China will immediately note the use of this word. It is sometimes used by analysts of Rwanda as well. The parallels between the CCP and RPF are not perfect, but they do share a certain centrality to their respective countries' regimes.

of the same unintended consequences. Chapter 2 established the moral hazard intrinsic to Chinese banks' subsidized loans to favored firms which the government will prop up indefinitely. In the Rwandan case, Gökgür (2012, pp. 27–28) similarly finds that “[w]henver SOEs or party-statalts make unwise investments, the Treasury carries the fiscal risks and ultimately assumes the fiscal burden.” This lack of credible budget constraints can encourage excessive gambling which presents a risk to any potential business partners. These firms are also unlikely to be disciplined for any other bad behavior: Gökgür (2012, p. 24) adds that “[e]ven if party-statalts win contracts through competitive-bidding on their own merits, they are likely to incur relatively common cost overruns beyond negotiated prices. Their billing records and their financial statements are unlikely to subject to any full or close scrutiny on the part of the GoR or any of its public entities.” From the point of view of a foreign firm, contracts involving companies connected to the Rwandan party or military apparatus carry heightened risk of cost overruns as well as delays in both construction and payment.²³

State-connected firms are more concentrated in sectors of the economy deemed strategically important such as industrial goods, construction, and finance. In some instances, a focus on construction and finance intersects with elites' private interests by building high-end housing and commercial areas which most Rwandans cannot afford.²⁴ The net result is a bifurcated domestic political economy characterized by a closed, sometimes cronyistic system in strategic and/or luxury sectors; and a more *laissez-faire* approach elsewhere.

²³Gökgür (2012) sees greater risk in foreign investors *not* being connected to Rwandan party-statalts because the rest of the economy is in a disadvantaged position in terms of access to credit and procurement contracts. I find the opposite to be true: at least in the instances discussed in this dissertation, contracts at arms' length from the Rwandan state have generally been implemented with many fewer problems. This finding is based only on contracts involving Chinese firms and should not be taken as definitively generalizable to all of Rwanda.

²⁴Gökgür (2012) emphasizes private elite interests, while Behuria (2016) focuses more on the strategic implications of areas such as cement and infrastructure for the maintenance and projection of state power.

Adherence to the rule of law is generally stronger in the latter category, where core regime interests are not directly concerned (Behuria, 2015; Behuria and Goodfellow, 2016). Foreign firms' exposure to political risk tends to increase where Rwandan regime-affiliated companies are concerned. Even within the construction and luxury sectors, some projects are backed by domestic private or international funding. These have generally been marked by lower political risk.

I identify four categories in which Chinese firms have been involved²⁵ and cover them sequentially. First are social sector projects, often funded by major multilateral development organizations. These are generally low-risk and indeed not drastically different from what Chinese firms did in Burundi, although because of Rwanda's better access to capital they are greater in number. Rwanda, though, presents other types of opportunities not available in Burundi. The second category consists of projects connected to Rwanda's national industrial upgrading drive, especially in manufacturing but at times also in the technology sector. These are also typically relatively arms-length from the Rwandan government and in many cases involve Rwandan private firms but have nevertheless become a successful part of Chinese diplomacy in the region. The third category is government buildings, some of which have been for military-connected firms with obvious implications for Chinese relations with the ruling regime. These are usually more limited in scale and not subject to the same type of political risk as the fourth category, real estate and tourism projects. Rwanda has made attracting global business travelers and tourists a high economic priority. For the elites' own purposes, Rwandan regime-connected and private investors alike have also sunk large sums into prestige projects such as luxury housing and a \$300 million convention center. Higher political risk has not deterministically precluded all Chinese

²⁵ Apart from roads, which were already covered.

firms from getting involved with regime-affiliated firms. The minority of cases where Chinese firms have gotten involved in higher-risk deals have left the Chinese government in the difficult position of deciding whether to directly address the structural problems created by Rwandan regime-affiliated firms and in the process offend an important diplomatic partner. Other Chinese-built projects backed by private Rwandan or international money have created greater diplomatic benefits than their officially sponsored counterparts. I cover these four categories in turn.

A. Social Sector Projects and Infrastructure

Chinese firms have built social sector and basic infrastructure projects using third-party funding in both Rwanda and Burundi, although these make up a smaller proportion of the more diversified Rwandan landscape. As in Burundi, Chinese firms were typically involved in Rwandan projects alongside other contractors, demonstrating that no procurement decisions were being imposed on the home government. The one exception proves the rule. There is one case in which a social sector project is being built by predominantly Chinese interests. The China Civil Engineering Construction Corp. (CCECC) is as of this writing building what will be the only hospital in Kigali's Nyarugenge District. The first phase's roughly \$7 million²⁶ is funded by the Rwandan and Belgian governments, and a second phase to expand the hospital is currently planned (New Times, 2018; Ngabonziza, 2019c). An article in *Xinhua* proudly mentions CCECC's participation in the project, indicating some diplomatic benefits without the Chinese government needing to play any obvious role in the project's planning or funding (Xinhua, 2018a).

At the same time, the hospital is a relatively small undertaking and easily done by one firm. For larger projects, Chinese firms have mostly been part of multinational efforts of the

²⁶Six billion Rwandan francs. Conversion per Xinhua (2018a).

type disallowed where Exim or CDB are involved. In 2013, the China Geo-Engineering Corporation (CGC) used \$19.9 million in World Bank funds to build a small hydroelectric dam. This made them the primary contractor out of a \$34 million budget for the dam proper, but the dam was part of a much larger (\$123.3 million) agricultural and irrigation program, with the rest of the money coming from Canada, the United States, and a G-20 fund (Global Agriculture & Food Security Program, 2018; World Bank, 2018a, 2020; Xinhua, 2018b). Similarly, starting in 2015, three smaller Chinese firms²⁷ received \$8.8 million from the African Development Bank for rural electrification, but this was out of a \$34.0 million²⁸ budget (African Development Bank, 2020d). By far the largest Chinese-built project, though, is the ongoing Rusumo hydroelectric dam. Straddling the Rwanda-Tanzania border, the dam is meant to provide electricity to both countries as well as Burundi, a short distance away. The World Bank is providing \$340 million split an even three ways between Burundi, Rwanda, and Tanzania, although on different terms. Reflecting Burundi's fiscal position, the Burundian portion is totally grant-based; Rwanda's, half grants and half loans; Tanzania's, all loans. (Because of this financial difference and because only power lines are actually being built on Burundian soil, I include the project here and not in the section in Burundi.) (World Bank, 2013a,b) Bidding has not yet taken place for all phases of the trinational project, but the first phase is divided into two primary contracts. First is \$75.1 million for civil engineering and equipment to a joint venture CGC, which also built the smaller dam mentioned above, and Jiangxi Water. Second is \$46.5 million to the German-Indian consortium Andritz (World Bank, 2017b). The African Development Bank is providing another \$10.6 million²⁹ to India's Kalpa Paru for transmission lines to Burundi

²⁷Sieyuan, Ningbo Sanxing, and Rousant (HK).

²⁸This was actually 6.4 million out of a budget of 27.4 million units of account (UA), a currency equivalent used internally by AfDB. Exchange rates to USD as of December 2015 per African Development Bank (2020a).

²⁹The actual contract was for 7,526,281.35 euros and 3,580,643,889.41 Burundian francs, which at January

(African Development Bank, 2019). In all of these cases, funders and host countries used open procurement rules to maintain competition, and Chinese firms participated on a basis similar to their peers from other countries.

B. Industrial Upgrading

Industrial upgrading, predominantly in the manufacturing sector but also in the technology sector, is a priority for the Rwandan government but is being enacted largely through industrial zones and favorable tax policies reminiscent of China's own experience. Some investors in Rwandan industrial zones are themselves Chinese—this topic will be covered in much more depth in the following section on equity investments—but most are either domestic or from neighboring countries (Steenbergen and Javorcik, 2017). In these cases, Chinese construction firms can still contribute by building factory facilities.

This is part of a longstanding tradition—China Building Materials helped set up Rwanda's only cement plant in 1984—but has accelerated substantially over the last decade, and with generally less state involvement than the government-sponsored 1980s cooperation program (Wingo, 2018). Indeed, Cimerwa (the Rwandan cement company that was heir to the original cooperation project) in 2009 hired China's Pengfei Group to build the country's second cement plant for \$50 million (New Times, 2008a). This major (for a small country) expansion of supply of a critical building material might be the single most significant contribution to Rwandan industrialization by a Chinese contractor, but it is not the only one. Beijing Construction Engineering Group (BCEG)—of the ill-fated Convention Centre—and China Star Construction both have their Rwandan headquarters in the Kigali Special Economic Zone (SEZ), an area in which the Rwandan government offers tax incentives for manufacturing firms (Chinese Embassy in Rwanda, 2017). Technically, this is

30, 2019 (when the contract was approved) translated to USD 10.6 million USD per Oanda (2020).

equity investment by Chinese firms, but the real bulk of their activity is as contractors for local projects. Public relations releases list nine factories apiece built by each firm as of 2018. BCEG built C&H Garments, a Chinese-invested apparel factory and a focus of this chapter's section on equity; as well as locally owned producers of water tanks, mattresses, and foodstuffs. It was also a secondary subcontractor in building the Kigali Logistics Hub, an inland container terminal operated by Dubai-based shipping giant DP World aimed at addressing the difficulties of trading in a landlocked state (Hope Magazine, 2018a). China Star, for its part, has built plastics, printing, and coffee processing plants, among others (Hope Magazine, 2018d). The values of these contracts are typically unavailable and quite small—the total value of C&H's initial investment, for example, was only \$10 million, and only part of this would have to the construction firm. Still, they have an out-sized public relations impact by contributing to the growth of a manufacturing base on a continent that has little and in a country whose government is publicly pushing for industrialization. The Chinese government is aware of this. China's Ambassador to Rwanda in 2015 visited the headquarters of BCEG and China Star along with the Chinese-invested C&H Garments plant, publicly “commend[ing] their important contributions to the socio-economic development of Rwanda” (Chinese Embassy in Rwanda, 2017). Construction contractors were receiving equal treatment here with equity investors, indicating the diplomatic utility of both. While BCEG is a relatively large, Beijing-based state-owned firm, China Star is a smaller firm from the southern city of Foshan. China Star by its own account began to focus on Rwanda because of a slowing domestic market. As they told a local paper in Foshan, “Rwanda's government is stable, its demand for infrastructure construction is huge, and its labor and land are cheap. There's an enormous business opportunity, and our net profits are triple what they are in China.”³⁰ (Gao Huichao [高慧超], 2019) Many places are low-cost

³⁰ Author's translation from original Chinese: 卢旺达政局稳定，对基建需求量大，且劳动力和土地价

and lack physical infrastructure, but Rwanda is different in its institutional strength. The government is not only “stable” but also trusted to honor contracts regarding investments in the SEZ, which in turn presents construction contractors with a major opportunity. This has not happened in Burundi.

While the above projects focused on manufacturing, another was oriented toward the technology sector. CCECC received \$10.2 million³¹ to build Rwanda’s Regional Information and Communication Technologies Centre of Excellence, a training center meant for Rwandan ICT professionals. Another of the government’s priorities is building human capital to make better use of the arrival of networking and mobile technologies to the region. This particular project was funded by the African Development Bank (African Development Bank, 2020b,c). A Chinese firm gained from the convergence of foreign capital and local government initiative, potentially reaping some of the reputational rewards.

C. Government Buildings

Chapter 4 established that China often uses grants to build facilities for government ministries in developing countries. Notably, Burundi’s Presidential Palace was completed and delivered even after an outbreak of political violence. However, Chinese firms only built one such facility (the Ministry of Finance building) in Burundi with third-party money, and this was before the 2015 unrest led most donors to reconsider their priorities there. This has not been the case in Rwanda, where stronger institutions and a greater accumulation of wealth enables Rwanda to pay Chinese builders directly for their work, albeit often at low prices. Bilateral Chinese-Rwandan contracts are not nearly as transparent as those involving major multilateral institutions, and dollar values are not often available, but

格低廉，存在巨大商机，纯利可以达到国内的3倍。

³¹7.5 million AfDB Units of Account, translated into USD as of December 2015 per African Development Bank (2020a).

the buildings themselves are easily observable. An earlier example came in 2007, when CCECC won a bid to build a new, \$10.5 million headquarters for the Rwanda Health Insurance Fund (RAMA). The company's announcement, posted in the Chinese Ministry of Commerce website, speaks to the juxtaposition of out-competing local companies for a contract but in the process lowering construction costs to the Rwandan government.

Participants in the bid for the RAMA building include Thomas Piron, Roko Construction Rw. Cor., Seyani Brothers (U) Ltd., Savita Builders Rwanda, Easter Builders, and five other foreign companies. Amidst fierce competition, our company rose to the top and at once came away with the bid, undoubtedly because of our logically sound technical plan. However, this will also benefit the ever-improving diplomatic relations between China and Rwanda and the continuing influence of the Forum on China-Africa Cooperation in Beijing.³² (Economic and Commercial Office of the Embassy of the People's Republic of China in Rwanda 【中华人民共和国驻卢旺达共和国大使馆经济商务处】, 2007)

Written in Mandarin, the dramatic tone is best suited for the official Chinese press and is clearly meant for an audience in the home country. The fact that CCECC out-bid a list of mostly African³³ competitors might have been omitted in an English- or French-language press release for African consumption. That being said, the Beijing-based conglomerate did provide cost savings to the Rwandan government by driving down the bidding price. This could benefit diplomatic relations. The Forum on China-Africa Cooperation (FOCAC) refers to the first incarnation of a triannual summit of Chinese and African lead-

³² Author's translation from original Chinese: 参加卢医保中心大厦项目投标的还有THOMAS PIRON、ROKO CONSTRUCTION RW. COR.、SEYANI BROTHERS (U) LTD、SAVITA BUILDERS RWANDA、EASTER BUILDERS等五家外国土建公司。我中土公司在激烈的竞争中能脱颖而出、一举夺标,与他们所报技术方案和合理固然相关,但也得益于中卢两国日趋良好的政治外交关系,得益于之前举行的中非合作论坛北京峰会的后续影响。

³³ Thomas Piron is Belgian. Roko, Seyani Brothers, and Savita are all Ugandan, although two submitted bids via local subsidiaries. No information could be found on Easter Builders. Although they were described as "foreign," some of the remaining five unnamed bidders could be Rwandan. The term "foreign" (国外) in Mandarin can mean "non-Chinese" rather than "outside one's native country," and Rwandans living in Rwanda might still be referred to as "foreign."

ers which had taken place in Beijing the year prior. Being a large, centrally state-owned firm, CCECC almost certainly relies on routine bank financing from state-owned banks; in some instances, such firms' executives also face career incentives to undertake projects reflecting government priorities. CCECC is here virtue-signaling on the Ministry of Commerce's own website, thereby demonstrating the power of the government's delegating project decision-making authority to the firms knowing that financial and career incentives as well as (for some) personal convictions will lead them to act in accordance with the government's wishes. High political risk and lack of available capital might stymie this strategy in Burundi, but it achieves results in Rwanda.

Another government building³⁴ shows a slightly different strategy on the part of a Chinese firm. A subsidiary of China Railway Jianchang³⁵ is building a new, fourteen-story headquarters for the Rwanda Utility and Regulatory Authority (RURA) (Hope Magazine, 2018c). They are doing so in a joint venture with Rwanda's Hygerat Construction—depending on the allocation of contract revenues,³⁶ a potential violation of procurement rules had it been funded as a grant from the Chinese government, but good for Rwandan interests in a different way.

New facilities for the national health insurance and utilities agencies are winners for public relations, but another Chinese-built project has a more direct connection to the ruling regime. CCECC, which built the RAMA (health insurance) building, is also building a \$16.0 million headquarters for three groups associated with the Rwandan military. These

³⁴I do not discuss in depth CCECC's involvement in the Rwandan Social Security Board (RSSB) Towers. Other than the total value of the contract (\$25.3 million), little is known about the construction process. Contract value per Rwanda Social Security Board (2013, p. 30), converted to USD as of the end of June 2013 per Oanda (2020).

³⁵This is a subsidiary of the China Railway Group, which also owns CCECC, the builder of the RAMA headquarters discussed in the last paragraph.

³⁶This is unfortunately not publicly known.

are 1) Zigama, a bank owned by the Ministry of Defence; 2) Rwanda's Military Medical Insurance (MMI), an investor in many military-sponsored business ventures; and 3) the Horizon Group, the leading Ministry of Defence-owned investment company which also built two road projects in joint venture with a Sinohydro subsidiary (China Civil Engineering Construction Company 【中国土木工程集团有限公司】 , 2018). President Kagame took power as a rebel leader, and the military and its associated revenue streams are still important to the regime. Building a new home for these organizations has particular significance for Chinese diplomacy.

D. Real Estate and Tourism

Indeed, government buildings in general will be noted more by government officials than by the general public. This is less true of the fourth type of project discussed here. Several Chinese-built real estate and tourism projects are highly visible and may reinforce popular perceptions of growth under the Kagame regime, but are often funded with private or Rwandan government money and would not have been feasible in a higher-risk market like Burundi. These projects frequently carry a degree of prestige for the government, particularly in light of Rwanda's dramatic economic comeback, and will also be noticed by some (mostly wealthier) citizens outside government. A major international convention center and luxury housing project funded by the Rwandan government were both seen by many as too expensive for a low-income country, and few contractors were willing to take on the associated risk. These represent pockets of more questionable governance in an overall favorable system, leading to meaningful subnational variation. The publicly funded convention center and housing project both exhibit characteristics paralleling projects backed by tied loans. While China did not directly fund either, the lack of other interested parties meant that Rwanda could not dismiss the contractors regardless of how well or how poorly

the projects went. Privately or internationally funded deals, on the other hand, typically went relatively smoothly and were paradoxically better for China's image in the country than officially sponsored projects. I begin with the publicly funded housing project and convention center before proceeding to a pair of private real estate projects and an internationally funded football facility.

By all estimates, Rwanda faces an increasing shortage of housing due to in-migration to cities. The \$150 million Vision City housing project is a flagship part of the government's response but has provoked controversy due to its focus on the high-end market. Building of luxury homes can serve as a symbol of national recovery from the genocide, but there are serious doubts as to how financially viable they are in a low-income country (Topping, 2014). One government critic pointed out that the opening price for the cheapest units was \$179,000, as compared to the median Rwandan's annual income of \$702 (Himbara, 2018). Most investors might have been leery, and so the project was funded by the Rwanda Social Security Board (RSSB), the national pension fund. CCECC, which also built several Rwandan projects previously mentioned, was brought in as the main contractor (New Times, 2015b).

Implementation of the project was not smooth. In 2013, the beginning of work was delayed by a standoff over land, as local resident claimed that they were being under-compensated by the government for expropriation. Their homes were ultimately bulldozed (Kagire, 2013). Even as construction was underway, the project began to draw criticism from within the Rwandan government. The Auditor General's Annual Reports for fiscal year 2016-2017 noted delays and cost overruns in construction, partially due to contractors not being consistently paid on time. The Auditor General also expressed concern that as of September 2017, only 15.5 percent of the houses had been sold, and completion was not far away. This

problem was being made worse by cost overruns, which were being passed on to buyers in a country which largely could not afford the houses to begin with (Office of the Auditor General of State Finances, 2017, pp. 16–17). The first wave of construction was completed in August 2018, but the vacancy issue largely remained. The government responded by cutting prices for civil servants and offering mortgages at 11 percent over 20 years—low by Rwandan standards, but still not enough to attract many buyers. Even at the new level of pricing, one Rwandan newspaper found that the payments on a two-bedroom unit would have cost 86 percent of the salary of the Auditor General himself (Ngabonziza, 2018). Even after the price cuts, 58 percent of units were still vacant as of December 2018. The Auditor General chalked this up to “inadequate planning” and the fact that the total construction budget had ballooned from \$89.6 million to \$131.2 million (Office of the Auditor General of State Finances, 2018, pp. 42–43). This was a high-risk project that most contractors without state subsidization might have avoided.

A similar story occurred with respect to a plan to build a world-class convention center in Kigali, although in this case problems went beyond simple lack of funding or market demand. In this case, the Chinese contractor was found to have done shoddy work. There was also variation in time here, as Rwanda’s access to international financing both in general and for the convention center in particular improved over time. This led to increased government leverage over the contractor as the influx of money meant that other firms began to express interest in continuing the troubled project.

In 2007, a consortium of Prime Holdings (50 percent), the Rwanda Social Security Board (25 percent), and Rwanda Investment Group (25 percent) set up a company to build a new convention center in Kigali (COMESA Regional Investment Agency, 2011). Prime Holdings is a publicly owned corporation, while the Rwanda Investment Group is owned

by a group of nominally private but mostly unspecified investors known to include organizations owned by both the state and the Rwandan Patriotic Front (New Times, 2008b; Gökçür, 2012, pp. 20–21; International Monetary Fund, 2017, p. 24). Crystal Ventures, the investment wing of the ruling Rwandan Patriotic Front, later joined (Kimenyi, 2016). In other words, this was a predominantly public enterprise.

This government-led initiative came with a very high price—\$300 million, to be exact—but also had public policy significance beyond the obvious desire to attract conferences and tourism. A newspaper exchange involving the project’s (German-born) architect says as much:

Earlier, critics from Germany and Europe had accused [architect Roland Dieterle] of importing an overly luxurious (and expensive) engineering concept to a country that is only rising from the ashes of political and economic ruin.

But Dieterle believes that the Kigali Convention Complex is a perfect model for sustainable urban development in Africa:

“In practice it is not realistic for a country to develop itself from the grassroots level to the high-tech level,” Dieterle retorts, adding:

“It needs landmark projects that demonstrate Rwanda’s success in order to reach an international level, as well as to show highly educated Rwandans that they can be optimistic about finding perspectives in their own country.” (New Times, 2008b)

The project’s budget was raising eyebrows in a country with limited means, but it was meant as a signal to investors and citizens alike that Rwanda was “rising from the ashes.” As can be seen in Figure 5.2, the building itself exhibits elements of traditional African architecture and radiates the Rwandan national colors at night. The monument had political implications, contributing to a sense of regime legitimacy surrounding Rwanda’s economic renewal. In 2009, Beijing Construction Engineering Group (BCEG) was recruited as the

Figure 5.2: Kigali Convention Centre



Source: Taylor (2018, p. 2).

primary builder (New Times, 2009).

Before arriving at the benefits of the convention center for the Rwandan government, there were two major stumbling blocks: cost and difficulties in the construction process.

As to cost, early project financing was not transparent, but the Rwandan government attempted to maximize its reliance on domestic borrowing via Treasury bonds in order to avoid the risks associated with fickle international markets and exchange rates (Ngabonziza, 2019b). In a poor country like Rwanda, however, there are limits to this strategy. By 2011, the project was stalling due to lack of funds (Ngarambe and Namata, 2015). (This issue was not dissimilar from that encountered during the Vision City housing project's construction.) In April 2012, the Governor of the National Bank of Rwanda, the central bank, told the press that “we have talked to almost all the big investment banks and are

waiting for their decision. Massive projects like the Kigali Convention Centre require a lot of funding, which our local banks cannot provide.” (Namata, 2012) By April 2013, this strategy reached fruition with a US \$400 million Eurobond issue. The bonds’ yield was lower than that of debt previously on Rwanda’s books. So, \$120 million of the proceeds were used to retire older, more expensive debt associated with the Convention Centre, and another \$150 million went to actually complete construction.³⁷ As Rwanda’s market reputation was improving, so was its access to international capital; indeed, orders for the bonds reached \$3.5 billion, or over eight times the amount actually available (Economist Intelligence Unit, 2013; Sulaiman, 2013).

This leads to the project’s second stumbling block: construction quality. Construction had fallen behind schedule to begin with as money ran low in 2011, but even after it restarted, it emerged that the Beijing Construction Engineering Group (BCEG) had used substandard materials which in some instances had already started to degrade before the building was complete. Auditors spoke to the press about this finding in 2015, after the eurobond issue. In other words, when the Rwandan government did not have the funding to finish the project, it had no choice but to stay with BCEG.³⁸ With new funding, however, Rwanda had the leverage to actually ask for an improvement in project outcomes. Ultimately, BCEG was fired and replaced with a private firm from Turkey (Namata, Kabona, and Ngarambe, 2015). Had this been a tied loan project, Rwanda would have had no choice but to tolerate the defective work, or else lose funding.³⁹ Paradoxically, firing BCEG was better for Sino-Rwandan relations than allowing the problem to fester indefinitely, as might have happened under a closed procurement scheme. In the midst of the controversy, the Chinese Embassy

³⁷The remainder of the issue went to the national airline and a hydroelectric project.

³⁸If the government already knew about the structural problems, which may or may not have been the case.

³⁹As will be covered in Chapter 6, Ecuador found itself in this exact situation with respect to several hydroelectric projects.

in Kigali told the Rwandan press that “BCEG and the Rwandan side are currently undertaking friendly negotiations to resolve the problems arising from their co-operation in the Kigali Convention Centre project. It’s a commercial issue and will not affect the cordial relations between China and Rwanda.” (Namata, Kabona, and Ngarambe, 2015) Granted, diplomats are not in the habit of publicly acknowledging souring relations. With the benefit of hindsight, though, the rest of this chapter demonstrates that Chinese engagement in Rwanda in fact did not slow down following the episode. Rwanda’s improving domestic institutional environment and international market reputation decreased Beijing’s ability to safeguard its commercial interests—in this case, a large construction contract—but in the process also limited the damage from an irritant to bilateral relations.

Around the same time, two more real estate projects were in the works courtesy of Sekoko Saïd Hatari,⁴⁰ a veteran of Kagame’s Rwandan Patriotic Front during the Civil War and a high-profile real estate investor in Kigali’s post-war economic resurgence (The Independent, 2009). These had similar significance for Rwanda’s rebirth, but generally went more smoothly. First was the Kigali City Tower, a twenty-story commercial building which *Forbes Africa* called “the tallest building in Rwanda and a potent symbol of reconstruction” (Forbes Africa, 2011). Built in 2011, the tower was valued by Ernst & Young at \$33 million, some portion of which went to primary construction contractor CCECC (Forbes Africa, 2011). Hatari’s next project also employed CCECC for construction work, but this one was much larger. The \$200 million “Downtown Ltd.” is a mixed-use development including residential space as well as offices, restaurants, and retail (The Downtown Limited, 2020). At its 2010 groundbreaking, Hatari told reporters that “We have gone a long way to make this day come to true, and the private sector must be the backbone of the development

⁴⁰Hatari will reappear in the “Equity” section of this chapter since he has invested in other projects alongside a Hong Kong-based group.

of the country. We have all the opportunities around us.” (New Times, 2010) First, having “gone a long way” carries fairly clear subtext for the Civil War veteran. The ability to build something so mundane as a large shopping center could not be taken for granted in Rwandan history; nor it could be easily done in contemporary Burundi. Second, his mention of the private sector, apart from promoting his own interests, indirectly speaks to CCECC’s role. This project (and the Tower before it) were products of Rwanda’s postwar institutional strengthening and ensuing economic rebound. A homegrown private businessman had the agency to select a construction firm without taking on debt from an overseas state-owned bank. Freelance contracting was more suitable to these circumstances than tied loans would have been, and in the process Chinese firms participated in a pair of projects with broader symbolism to the Rwandan public.

Finally, Rwanda Football Federation (FERWAF) has contracted CCECC to build its “FERWAF Village,” a sporting complex which includes a hotel for visiting teams. The \$4.8 million⁴¹ budget is 65 percent funded by FIFA (FERWAF, 2016). The hotel may be managed by Century Real Estate, a Hong Kong-invested firm (FERWAF, 2017). The sporting complex is nowhere nearly as large as the other projects mentioned here, but it does have some minor diplomatic significance: FIFA President Gianni Infantino laid the facility’s cornerstone during a February 2017 visit to Rwanda (Asiimwe, 2017).

The general pattern across all of these projects is that the less involved China is in local politics or fundraising, the more Sino-Rwandan diplomatic relations can benefit. The two privately funded real estate projects and FIFA’s sports facility gave a Chinese firm an opportunity to put its name on high-profile developments; the Kigali City Tower is particularly symbolic for Rwanda. Local politics complicated the picture, however, for the Vision City

⁴¹3.85 billion Rwandan francs, converted to U.S. dollars as of the date of CCECC’s selection at November 16, 2016. Exchange rate data per Oanda (2020).

housing development and the Convention Centre. Both were built more for political reasons than because most expected them to be profitable, and Chinese firms were among the few willing to take on the risks of non-repayment. The financial establishment in Beijing was systemically subsidizing firms' ability to take such risky bets, thereby ensuring Chinese commercial interests in keeping construction-sector capacity at work. However, the predictable delays and other issues which emerged led to bilateral frictions. In the case of the Convention Centre, China overlooked the unpaid remainder of a \$300 million contract for one of its firms in order to avoid the negative ramifications to diplomatic relations of problems with the firm's handiwork. Even within the category of freelance contracts, we can observe the tradeoff between protecting commercial interests or maintaining diplomatic relations, especially where political risk was higher for individual projects than for the host country as a whole.

Freelance Contracts: Summary

Chinese freelance contracts in Rwanda exhibit substantial variation in terms of diplomatic impact and political risk. Lower-risk items like multilateral-funded social sector projects or privately-funded industrial development can be public relations wins without all that much risk or even much Chinese state involvement. Chinese firms have particularly stood out for their role in factory construction, the significance of which for the African continent requires no explanation. Government buildings both for public service provision and for military organizations close to the regime can also both contribute to China's reputation for goodwill. Although these are typically being paid for by the Rwandan government, Chinese firms' low cost and routine subsidization generates what amounts to a discount on the purchase, and the projects' small size means that the risks of non-payment or political interference are attenuated. Within the flashier real estate and tourism sectors, however,

risk sometimes increased. The Kigali Convention Centre and Vision City high-end housing project both carried price tags in the hundreds of millions in one of the world's poorest countries. The Convention Centre in particular left China with a black eye as it opted to let one of its firms be fired for poor handiwork in the name of the broader relationship. This tradeoff between commercial and diplomatic interests never came to a head in the case of privately funded skyscraper and commercial development projects. Political risk does not deterministically keep all Chinese firms away, but there may be a reason that the Convention Centre and Vision City are the only two (admittedly large) examples in Rwanda, and neither of the involved firms has done so well that others would be keen to follow in their footsteps.

In broader context, Burundi does not offer the same types of opportunities as Rwanda. Its entire political economy is more similar to the parts of Rwanda dominated by the RPF and military. As a result, the reduced volume of Chinese construction contract revenues derived from the country mostly come from external organizations like the African Development Bank. This also means that in relative terms, aid from the Chinese government is much more important in Burundi, whereas in Rwanda aid is secondary to what Chinese firms do on their own accord. This analysis still leaves out two pieces of puzzle: loans from Chinese banks and equity investments. The next section covers the limited number of loans to Rwanda, and the chapter concludes with analysis of equity investments.

Loans Chinese contracting firms have been fairly successful in entering Rwanda on their own, and there is little compelling geostrategic or resource security reason for Chinese loans to allocate capital there. The only possible exception would have been the Kivu Belt highway project improving access to the mines of the eastern DRC, and as discussed previously in this chapter, international interest in this network of roads was such that China

Exim shared the burden with the African Development Bank and several other multilaterals. Outside the highway sector, which in any event made more use of non-Chinese capital than Chinese, banks from China have not been as active in Rwanda. Three loan projects stand out.

First, a consortium of China Railway (and its subsidiary CCECC), Sinohydro, and China Geo-Engineering (CGC) between 2014 and 2019 were involved in upgrading water supply and drainage systems in the Kigali area (African Development Bank, 2018). The Africa Growing Together Fund, a \$2 billion facility contributed by the People's Bank of China and intended for collaboration with the African Development Bank, contributed \$50 million of the budget. This was not a majority of the project budget: another \$121 million came from the African Development Bank itself as well as another \$50 million⁴² from the European Investment Bank, \$41 million from the government of Rwanda, and \$20 million from the OPEC Fund (African Development Bank, 2014, 2017; OPEC Fund, 2018). This arrangement is qualitatively different from many most Chinese loans. Its focus on the social sector and minority of Chinese funding much more resembles many internationally backed Chinese freelance contracts. The involvement of the People's Bank of China, the central bank, is unusual for an international development project and enabled a different mode of financing from the more common closed, tied model. The People's Bank of China has generally been a force for liberalization within the Chinese system and is not subject to the strict China-first procurement rules which often inhibit international collaboration for Exim and CDB, within whose portfolio international development finance more typically falls (Bell and H. Feng, 2013).

The other two loan-backed projects stray less from China's regular practices. China Road

⁴²45 million euros.

and Bridge (CRBC), a large state-owned firm, is building three stadiums for \$9 million apiece in the Eastern Province, outside the capital. An unspecified Chinese organization is extending credit which is to be repaid by the districts, the level of Rwandan government immediately below the province (Mugabe, 2019). Local governments are not likely to have the same type of access to international capital as the national government or even provincial ones, meaning that China may have needed to supply its own credit for the project to happen.

The third and final Chinese loan-backed project is much larger. Exim is lending \$214 million toward a hydroelectric project at Nyarabongo, the site of one previously existing dam. Touted as the largest Sino-Rwandan cooperation projects in history, the size of the payday for contractor Sinohydro may have been enough to justify the expenditure (F. John, 2020). It also may have been more difficult for Rwanda to find capital for an ambitious bet.

In summary, the rare occasions on which China has lent money to Rwanda are often products of exceptional or idiosyncratic circumstances: 1) a high degree of cooperation between the Chinese central bank (not a development-focused organization) with third parties; 2) projects being implemented at the subnational level; and 3) an exceptionally large item. The relative dearth of these loans indicates the degree to which they are necessary.

5.1.3 Conclusion: Contracts and Loans

Diplomatically speaking, the best way for Chinese firms to build larger projects is by using third-party financing. Doing so captures the diplomatic benefits of selling construction projects at bargain prices while sidestepping potential reputational costs from the politics of debt; strict procurement procedures associated with Chinese banks; and involvement in

contentious local fiscal politics. Tied loan contracts do incur these costs, and banks will typically only incur them when firms require the extra protection from political risk.

This all assumes, though, that Chinese firms' role is relatively transactional and limited to construction and engineering. In some cases, Chinese firms have taken on longer-term roles as investors. The rest of this chapter covers this topic.

5.2 Equity

Equity investment implies a more concrete Chinese financial commitment than freelance contracting in which financing comes from elsewhere, but asks much less of the recipient than Chinese loan contracts. Equity investors have fewer procurement requirements and can buy more local products and/or partner with local firms.⁴³ They are also making longer-term commitments than are implied by transactional agreements to build projects. Perhaps most importantly, equity investors hold any project-related debt and downside risk to the benefit of the local government's balance sheet. This long-term assumption of risk is a diplomatic positive but is most tenable in states with stronger rule of law. Following the format of the previous section on contracts and loans, this section will explore equity investment as a middle-tier between aid and loans using a mixed methods framework. First is large-n analysis of the same global sample of developing countries. Second is elaboration of the very limited role for equity investment in the high-risk Burundian environment and its larger role in Rwanda. I then conclude.

⁴³Unless they are themselves borrowing from Chinese policy banks. This does happen at times and is a source of variation in financial stringency within the category of equity investment. This type of arrangement was used in a Burundian television broadcasting investment as well as Peruvian mining projects and will be discussed later in this chapter and in Chapter 6, respectively.

5.2.1 Quantitative Analysis

5.2.1.1 Data and Methods

Data on equity investments are taken from three sources. First is the China Global Investment Tracker maintained by American Enterprise Institute (2019). This dataset includes independently verified investments from a worldwide sample set, but it only includes items over \$100 million and is not a representative sample. The second is the official data from the *China Statistical Yearbook* (National Bureau of Statistics of China, 2018). This data (nominally) includes both large and small deals, but is subject to serious limitations: in this dissertation's sample set, it includes less than half of the dollar value of deals included in the explicitly limited AEI sample. The official data is not more reliable than the admittedly constrained efforts of independent organizations, but I include it for completeness' sake. Third is the China-LAC OFDI Monitor (*Monitor de la OFDI China en ALC*) produced by RED ALC (*Red Académica de América Latina y el Caribe sobre China*) (Dussel Peters, 2019). This dataset includes independently verified deals of all sizes and reaches back to 2000 (as opposed to 2005 and 2003 for the first two, respectively), but is limited to the Western Hemisphere. Because the regionally limited RED ALC data is less useful for testing geostrategic hypotheses, I include it only in the Appendix (Section 5.4). In the main body, I instead focus on the two global datasets, running models of each using both sets of indicators of geostrategic importance.

All values for equity investment are transformed according to the formula $\ln(x + 1)$. I use Tobit models to account for zero-inflation.

5.2.1.2 Results and Analysis

Table 5.4: Equity Investment, Commitment Basis, Global Sample

	(1) Tobit (AEI)	(2) Tobit (YB)	(3) Tobit AEI	(4) Tobit YB
Taiwan recognition (binary)	-7.104*** (-3.12)	-1.925*** (-2.88)	-6.920*** (-3.02)	-1.741** (-2.22)
ASEAN member, SCS disputant (binary)	-0.152 (-0.05)	0.589 (1.12)	0.440 (0.19)	0.662 (1.45)
ASEAN member, SCS non-disputant (binary)	5.657*** (2.60)	1.806*** (4.14)	4.162** (2.12)	1.453*** (3.78)
UNGA voting similarity with China (one-year lag)	1.195 (0.27)	1.893* (1.83)	-0.570 (-0.14)	1.674 (1.59)
Border with China (binary)	4.072** (2.54)	1.080*** (3.17)		
Chokepoint (binary)	1.433 (1.08)	0.559* (1.79)		
BRI route (binary)			5.405*** (4.00)	1.062*** (3.79)
Distance from China (pop.- weighted; thousands <i>km</i>)	0.194 (1.31)	0.0208 (0.62)	0.344** (2.32)	0.0314 (0.87)
Commodity exports to China (log; one-year lag)	0.705*** (2.76)	0.183*** (3.65)	0.787*** (3.06)	0.200*** (4.43)
Total imports from China (log; one-year lag)	0.401 (0.36)	-0.0185 (-0.08)	0.258 (0.26)	-0.0792 (-0.37)
Rule of Law (WGI; one-year lag)	0.0201 (0.03)	-0.480** (-2.43)	-0.124 (-0.18)	-0.446** (-2.34)
Polity score (one-year lag)	-0.0234 (-0.26)	0.00370 (0.18)	0.00289 (0.03)	0.00315 (0.16)
Debt-to-GDP ratio (log; one-year lag)	1.060 (1.43)	-0.222 (-1.53)	0.692 (1.00)	-0.243* (-1.76)
GDP per capita (log)	0.360 (0.32)	0.174 (0.73)	0.0228 (0.02)	0.171 (0.73)
Population (log)	1.473 (1.59)	0.355* (1.84)	1.246 (1.51)	0.358* (1.90)
English language (binary)	2.000* (1.80)	0.727*** (2.94)	2.324** (2.11)	0.729*** (2.98)
Time (Y2000 = 1)	2.865*** (3.80)	0.214*** (2.66)	2.904*** (3.87)	0.223*** (2.73)
Time ²	-0.100*** (-3.38)	-0.00339 (-0.96)	-0.102*** (-3.45)	-0.00371 (-1.06)

Continued on next page

Table 5.4: Equity Investment, Commitment Basis, Global Sample

	(1)	(2)	(3)	(4)
	Tobit	Tobit	Tobit	Tobit
	(AEI)	(YB)	AEI	YB
Constant	-75.38*** (-7.02)	-9.651*** (-4.42)	-67.55*** (-6.45)	-8.861*** (-4.12)
Countries	125	114	125	114
Start Year	2005	2003	2005	2003
End Year	2017	2017	2017	2017
Observations	1546	1354	1546	1354
Clustered SE?	✓	✓	✓	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from American Enterprise Institute (AEI) and China Statistical Yearbook (YB).

As for grants and zero-interest loans, the results for H1 (territorial claims) are stronger than those for H2 (general diplomacy). Countries which recognize Taiwan receive substantially less mainland Chinese investment—90.5 percent less, based on the model’s⁴⁴ prediction setting all other variables to mean. Interestingly, South China Sea disputants do not receive less investment, perhaps reflecting the economic dynamism of the Southeast Asian region. However, non-disputant ASEAN members do receive over triple as much investment as a “typical” global country.⁴⁵ While this is not so drastic a differential as exists for the all-important Taiwan issue, it remains the case that the economic benefits of equity investment are flowing disproportionately to countries with which China does not have disputes of a second-order variety. From the Chinese government’s perspective, this could be a reward to friendly countries as well as a signal to disputants of what could await them were they to change their stance. Of course, part of this may also reflect nervousness on the part of

⁴⁴Based on Column 3 of Table 5.4, which uses the more reliable AEI dataset and the BRI indicator, which was a better predictor of equity than the geographic variables.

⁴⁵Based on the same model and parameters as the previous prediction regarding Taiwan.

host governments and firms about the political risk to investing in the midst of a territorial dispute.

Evidence for the United Nations variables (H2) is somewhat weaker. UNGA voting alignment is positively associated with equity investment in the official data but not for the AEI dataset or the Latin America-only figures (Appendix). UNGA voting and/or underlying diplomatic alignment appears to be at most a secondary factor. This is similar to the pattern established in the previous chapter on aid: General Assembly voting was a middling predictor of aid, the South China Sea dispute a stronger one, and the Taiwan issue an overwhelming one.

Geostrategic factors (H3) are also generally important predictors of equity investment, albeit for some measures of geostrategic importance more than others. Of the geographic variables, border security is a more reliable predictor than the chokepoint binary. Sharing a border with China was positively correlated with investment for both datasets which include countries bordering China: according to the model of AEI data, bordering countries receive just over three times as much investment. In two out of three datasets, the same could be said of maritime chokepoints. However, this is somewhat more tenuous for the RED ALC data, the only maritime chokepoint included in which is the Panama Canal. Chinese firms are heavily invested around the Canal. Depending on one's perspective, this is either a data point in support of the idea that China will invest in maritime infrastructure at important locations, or a single observation not sufficient to yield statistical results. Belt and Road route countries were also more likely recipients of investment across both datasets which include them; per estimates of the AEI data, they receive 5.5 times as much investment, even more than would a bordering country.⁴⁶ The strong results for Belt and

⁴⁶The Latin America-only RED ALC data does not.

Road countries are especially meaningful given this variable's lack of importance to small-scale concessional flows. Navigation across these countries is a strategic interest of China's, and building railways, highways, and the like is better accomplished via equity investments which can direct larger volumes of capital committed for the long term. The fact that these are equity investments also means that Chinese firms are holding any related debt, which is both a symbol of how highly China values these projects and a welcome move in host countries.

In keeping with the findings of previous studies, equity investments are strongly correlated with commodity exports to China (H4) in the two global datasets. However, this is not the case for the Latin America-specific RED ALC figures. This is probably because Chinese-produced oil in the Western Hemisphere typically goes to the United States or other hemispheric markets; there is little sense in shipping oil tankers all the way across the Pacific when other consumers are so close. However, as will be covered in the Peruvian case study in Chapter 6, China's dominant position in global metal imports is such that it does use equity investments to import metals from South America.

One non-result is worth mentioning: there is no consistent correlation between governance quality and equity investment. The official data show an unexpected negative correlation, but this does not hold for the two independently verified datasets. The theory did not predict any such correlation. However, these findings are consistent with the idea that Chinese equity investment is somewhat protected against political risk, but not to the same degree as debt. From a more holistic standpoint, equity is thus a smaller share of total activity in high-risk markets where Chinese banks find reason to issue loans, but a larger share in

lower-risk markets.

5.2.2 Equity Investments in Burundi and Rwanda

The quantitative results showed that Chinese equity investment responds to more salient diplomatic issues (Taiwan and the South China Sea) and geostrategic issues (Belt and Road corridors), but not to the more type of mundane diplomatic concerns operationalized by United Nations voting and present in countries like Burundi and Rwanda. It also showed a null relationship with political risk. The largely indeterminate nature of the large-n results masks a degree of diversity in equity investments. They might be coordinated with the Chinese state, the host government, both, or neither.⁴⁷ Some have inherent political significance, as has been the case for a Chinese firm's bid for a dominant stake in African television broadcasts; others, much less so. If aid is generally less stringent and loans more so, then equity's middle position on the spectrum actually encompasses a range of possible outcomes, some of them representing concessions to the host country and some of them fairly tough.

In this section, I explore this variation through observed investments in Burundi and Rwanda. Because of its higher risk and smaller market, Burundi has only hosted one Chinese investment of significance, and it is part of a broader African initiative which began in Rwanda. The Chinese government has committed substantial resources into this initiative, in which a (technically) private investor has upgraded television broadcasts in both countries and in the process strengthened state control over media. This has characteristics of aid in that China is using its own resources to strengthen the position of recipient elites. I discuss this project first. I then move to the larger number of investments in

⁴⁷See Rithmire (2019) on different types of Chinese outbound investors.

Rwanda. These can be sorted the categories of social sector projects; industrial upgrading, including mining, manufacturing and technology; and real estate and tourism. These are discussed sequentially and will be introduced in greater detail following the uniquely PRC government-sponsored case of the television investments.

5.2.2.1 StarTimes Digital Television in Rwanda and Burundi

StarTimes is a Chinese firm, but most of its operations are in the over thirty African countries in which it now operates television broadcasting businesses. The company's own website presents it as a pioneer in Chinese influence, referring to itself as "a media company with global influence surely rising in the East"⁴⁸ (StarTimes (四达时代), 2020). StarTimes is privately held but frequently coordinates with the Chinese government in Africa (Economic Daily [经济日报], 2012). In 2012, the firm received a \$163 million loan from China Exim to expand in Africa; another \$60 million came in 2014 (Rønning, 2016, p. 67). Exim has also issued loans to StarTimes to fund its investments in a number of individual countries, including (as we will see) Burundi (Marsh, 2019). This arrangement is emblematic of the sometimes uncertain boundary between private business and state policy in China. Although technically private, StarTimes relies heavily on the state for financing, and the nature of its activity in Africa reflects many Chinese government priorities. Marsh (2019) points out that its cheapest television packages only include news from domestic channels, Al Jazeera, and CGTN, China's state-owned foreign-language network.⁴⁹ Pricier packages might bring in channels from Western countries, but few in Africa are able to afford these. CGTN has been found to systematically portray the PRC's policy abroad and even the lives of its ordinary citizens in a systematically more positive light than other broadcasters, and

⁴⁸ Author's translation from original Chinese: "一个有全球影响力的传媒集团必将出现在世界的东方"

⁴⁹ As of this writing, channel listings company's website confirms this. See <https://www.startimestv.com/bouquet.html> for channel listings in Kenya.

its disproportionate representation on African airwaves has obvious implications for public diplomacy⁵⁰ (Madrid-Morales, 2017, 2018; X. Zhang, Wasserman, and Mano, 2016). Apart from including Chinese content (both news and entertainment) in its channel packages, StarTimes is also promoting greater inclusion of African content. In an interview with the official paper *China Daily*, the CEO of StarTimes' Rwandan subsidiary "said that western culture is prevalent in Africa and so the continent needs to ensure that its heritage is preserved even in the context of globalization." The article continued, "StarTimes will soon begin to make African movies so that the continent can showcase its culture to the rest of the world." (Ndungi, 2018). Marsh (2019) adds that this leaves StarTimes with a degree of first-mover advantage, as few foreign firms are sponsoring African-created content which can come across as more relatable or even empowering to many viewers.

Across the African continent, the general pattern is that StarTimes receives state credit to invest a growth market (digital television) which many African countries might have trouble affording otherwise. StarTimes usually holds most of the associated debt and risk but has powerful patrons in Beijing to protect it from losses if investments go poorly. This story has not unfolded in the exact same way, though, in each of the countries in which StarTimes has invested. Rwanda and Burundi again present a useful comparison. Burundi's higher political risk has not kept China from making a politically useful investment there, but it has presented roadblocks relative to Rwanda. This sheds some light on the null relationship between governance risk and equity investment as shown in the statistical analysis. Unrest in Burundi decelerated Chinese investment relative to neighboring Rwanda but did not deter it, indicating a degree of resistance to political risk beyond that typically displayed by purely private investors.

⁵⁰The immediate impact is limited by the fact that most Africans do not own televisions. However, this could change over time, and StarTimes has already gained a formidable market share in many countries.

Rwanda was the first country on the African continent in which StarTimes invested. The local Rwandan subsidiary was established in 2008. Paul Kagame delivered a speech at the opening ceremony and cut the ribbon side-by-side with StarTimes' CEO (StarTimes, 2011). Little has been said publicly about the terms of StarTimes' investment in Rwanda, but it is known that the company started with land-based digital terrestrial transmission (DTT) but upgraded to satellite transmission in 2014. This move improved access for some remote rural areas where terrestrial signals were impeded by Rwanda's hilly topography (Hope Magazine, 2016b; Ndungi, 2018). By all accounts, StarTimes has been very successful in Rwanda's small but growing market. As of 2019, the Rwandan subsidiary's CEO estimated that the company had an 81 percent share of the existing market and was planning to sell inexpensive television sets in a bid to expand its market beyond the 12 percent of Rwandans who then owned televisions (Sabiiti, 2019).

Beginning the transition to digital television broadcasts in a low-income country was no mean feat, and replicating it in Burundi has proven to be much more of a challenge. China over time came to offer a favorable deal to Burundi from a purely financial perspective but made sure that its own firms were involved in the process. In the end, this tradeoff was made even more favorable for the Burundian leadership by enabling a greater degree of state control over the media.

In June 2014, China announced that it would fund Burundi's transition to digital terrestrial transmission ahead of the International Telecommunications Union's June 2015 target for all of Africa to upgrade from analogue broadcasts. The money consisted of \$40 million divided between grants to the Burundian government and Exim loans to a joint venture between StarTimes and Radio Télévision Nationale du Burundi (RTNB), the state broadcaster (Nduwimana, 2014). It is unclear what portion of the deal would have been grants

and what portion was debt, but the debt was partially held by a Chinese investor and so was less of an imposition from Burundi's perspective.

In the near term, the makeup of the original deal became irrelevant as unrest gripped Burundi beginning in April 2015. The deal was placed on hold as equipment shipments into Burundi were stalled. (For reference, Rwanda had completed its digital transition by July 2014 and was at this point already planning its upgrade to satellite.) (Kamau, 2015). In December 2016, President Nkurunziza announced in a speech before Parliament that the plan was back on. China Exim was supporting the deal (CGTN, 2016).

Under this new arrangement, Exim lent \$32.6 million to a joint venture of, again, StarTimes (60 percent) and RTNB (40 percent). From Burundi's perspective, there were both positives and negatives to the loan terms. On the positive side, the repayment structure was highly concessional: a twenty-five year repayment period at 2 percent interest and a five-year grace period. Burundi was in the midst of an economic crisis, and anything tougher might not have been sustainable; the five-year grace period in particular may have been meant to buy time for Burundi's economy to recover. These terms essentially sacrificed some of Exim's wealth in the name of public diplomacy via television broadcasts and private diplomacy with Burundi's leaders, who were operating on a limited budget. On the negative side of the ledger, Burundi was not given very much choice in how the project was implemented. The government went into debt to fund a project being implemented by a majority foreign-owned company. One anti-corruption NGO questioned whether this was legal under Burundian law (Manishatse, 2017). By the Burundian Minister of Communications' own account, the StarTimes joint venture started the project using its own money and agreed to be repaid with a future Exim loan. This essentially forced the loan through Parliament, which had not yet been notified about the deal (Gakiza, 2017). The head of

the anti-corruption NGO OLUCOME pointed to the closed nature of the deal: “Instead of requesting loan on behalf of the Burundian population as it has been done, the government should call for an open international competitive bid for the contract whereby RTNB [the national broadcaster] should have significant shares and the company” would be in debt (Manishatse, 2017). Furthermore, the promise of grants alongside loans was not what it seemed. China announced that it was donating \$14 million in equipment—not trivial alongside \$32.6 million in highly concessional credit. It emerged, though, that this was conditioned on acceptance of the loan. The Minister of Communications told Parliament that this cost was worth bearing in light of the project’s longtime delay and that “the government had no choice because it was negotiating in a position of weakness”⁵¹ (Ndamiye, 2017).

This was an atypical arrangement in which a Chinese equity investor was in effect the beneficiary of a tied loan scheme. This hybrid scheme was tailored to maximize StarTimes’ odds of success in a difficult environment while managing the associated downside risk to bilateral relations. On one hand, the loan terms were highly concessional. The fact that StarTimes began work before the loan was approved or Parliament notified indicates that they were also making use of either credit from their usual bankers or retained profits from other operations, which in turn were mostly funded by China Exim. Either way, there was an unrecorded subsidy to the Burundian government via StarTimes independent of the direct loan from Exim. The lack of choice in equipment and going into (cut-rate) debt were an acceptable price to pay from Burundi’s perspective. “Negotiating from a position of weakness,” as the Minister of Communications put it, Burundi could have had it much worse, and it is indeed unclear that any other companies intended to compete

⁵¹Translation from original French: *Et d’ajouter que le gouvernement n’avait pas de choix car il négociait en position de faiblesse.*

against StarTimes.

The real benefit to the Burundian leadership, though, has been control over the media. This has emerged since the 2016 loan. By August 2017, the general manager of StarTimes in Burundi stated that the company already had an 85 percent market share (Xinhua, 2017c). In the grander scheme of things, this is a more modest market presence than the numbers would seem to suggest. The World Bank (2018c) estimates that in 2017, only 9.3 percent of Burundians had electricity,⁵² much less television sets. Still, this represented the wealthiest sector of the population and an important demographic for regime stability. As Chinese state media has accurately pointed out, Burundian consumers have benefited from reduced television costs and higher signal quality following the deal (Xinhua, 2017c). The type of content being broadcast, however, has been restricted. In 2019, Burundi expelled the British Broadcasting Corporation (BBC) and Voice of America (VOA) (Solomon, 2019). Communications Minister Nestor Bankumukunzi, who had originally announced the deal with StarTimes, now announced that “all Burundian and foreign journalists who are in the country are forbidden from reporting or giving information directly or indirectly to the BBC and VOA.” (Edwin, 2019) Burundi had already been unhappy about the organizations’ coverage of electoral violence, and a BBC story about government interrogation and torture facilities was reportedly the last straw (Solomon, 2019). StarTimes’ monopoly now means that Burundian state-produced content dominates the airwaves (Nsengiyumva, 2019). In Chapter 4, China signaled solidarity with an unpopular Burundian regime by completing a new presidential palace on a grant basis. Here, a particularistic arrangement of equity infused with concessional debt went beyond symbolism and actually contributed to state censorship.

⁵²This number was 34.7 percent in Rwanda.

In Burundi, Rwanda, and elsewhere on the African continent, StarTimes has enjoyed a high degree of state support in fulfilling its dual missions of gaining first-mover advantage in the continent's nascent television markets and promoting viewpoints favorable to the PRC. In some instances, pro-PRC broadcasting may overlap with national governments' own censorship or propaganda strategies, leading to a coincidence of interests amenable to closer diplomatic ties. This was true to a certain degree in Rwanda, where Paul Kagame personally attended StarTimes' precedent-setting entry into what has become a highly censored media environment, but has become more obvious in countries like Burundi where the Chinese state incurred losses to its own balance sheet to enable its firms to boost Chinese discursive power⁵³ without endangering their own financial interests or payrolls in difficult business climates. Not all investments have such clear diplomatic ramifications. Several projects in Rwanda exhibit less PRC government involvement and a more balanced mix of diplomatic and commercial considerations. These are the subject of the next section.

5.2.2.2 Other Equity Investments

Apart from StarTimes, Chinese investments in Rwanda can be grouped into three categories similar to those observed for freelance construction contracts. For obvious reasons, no Chinese firm has taken an equity stake in a Rwandan government building, but the other three groupings do apply. These are, in order presented: 1) social sector projects; 2) industrial upgrading across the mining, manufacturing, and technology sectors; and 3) real estate. These generally take place at greater distances from organizations like the policy banks and Ministry of Commerce, which otherwise play a greater role in overseas development finance. Instead, they involve parts of the Chinese establishment which operate on

⁵³“Discursive power” (话语权) is a term often used in the PRC in reference to the government's desire to gain an international voice in a mostly unsympathetic global media environment.

more market terms—notably, the sovereign wealth fund is involved in Rwandan affordable housing—or private capital. Cross-sector comparison shows the strengths of weaknesses (from China’s perspective) of relying on these organizations to act on their own. On one hand, they can make investments which build good will, as has been the case for affordable housing and the manufacturing and technology sectors. On the other hand, these investments are contingent on the quality of local business opportunities. Affordable housing has drawn the attention of the United Nations; high-end real estate, of the Rwandan government. Luxury real estate, though, is not necessarily a public relations winner in a poor country. The manufacturing and technology sectors have the inverse situation: for reasons to be discussed in this section, they are inherently more difficult for investors hoping to turn a profit and have drawn much less Chinese capital, but are nevertheless raised more often in both Rwandan and Chinese official statements hoping to highlight Rwanda’s nascent industrialization and China’s role therein. The remainder of this section sequentially covers the social sector, productive industry, and real estate.

A. Social Sector Projects Equity investment in the social sectors is relatively unusual. Hospitals, schools, and the like in low-income countries are often not very profitable and are more often the preserve of local government budgets, sometimes supported by foreign aid. Rwanda is currently home to an exception. CITIC Construction, the construction subsidiary of China’s sovereign wealth fund (CITIC), has established a joint venture with the International Finance Corporation (IFC), the arm of the World Bank Group charged with facilitating private investment, to build affordable housing in Africa. The initial investment totals \$300 million spread across Kenya, Nigeria, and Rwanda, potentially with more funding and countries to be added later (International Finance Corporation, 2015). CITIC is reportedly investing \$120 million in the Rwandan portion, making it an 80 percent

shareholder (American Enterprise Institute, [2019](#)). Tiny Rwanda is thus hosting a disproportionate part of a major multinational project that it shares with two of Africa's largest countries. On the surface of it, this could be taken as a vote of confidence in Rwanda's institutions, but the reality is a somewhat messier product of Rwanda's bifurcated political economy. Because Rwanda's leadership has allocated much of its housing budget to high-end developments like the aforementioned (and Chinese-built) Vision City, there remains a growing affordable housing shortage. Rwanda does have the institutions necessary to regulate private investment in housing, but the role of the party- and military-owned firms in this sector of the economy means that insufficient capital is being allocated outside the luxury sector. This combination of unmet demand and reliable institutions leaves an opening for foreign capital. As a part of the World Bank Group, IFC is generally more risk-averse than Chinese firms with state-owned backing would be. The same is actually true for CITIC. As a sovereign wealth fund, CITIC's core mission is to earn financial return on China's foreign exchange holdings, not to use them as a form of stimulus as Exim and CDB do. In this respect, CITIC's cooperation with a major multinational institution is reminiscent of the People's Bank of China's partnership with the African Development Bank to upgrade Kigali's water supply and drainage systems. These are more risk-averse parts of the Chinese establishment operating on broadly similar terms to colleagues from around the world.

The lower-risk nature of the project allowed for the relatively unusual step of equity investment in the social sector. It would have been easy enough for the World Bank to issue a loan for a firm, Chinese or otherwise, to build affordable housing in Africa, but the fact that both parties opted for equity investment demonstrates a high degree of confidence in the endeavor's financial sustainability and long-term prospects in what by all accounts could

be a growth market. IFC's press release on the topic indicates anticipation of future revenue streams, specifying that the joint venture "will start by developing homes in Kenya, Rwanda and Nigeria, expanding to other countries as operations ramp up" (International Finance Corporation, [2015](#)).

B. Industrial Upgrading Rwanda's Vision 2020 plan for development dates back to the turn of the millennium, when Paul Kagame had just formally taken office, and lays out a bold strategy cutting across virtually all sectors of the economy. Parts of it, such as agricultural improvement, are fairly standard in the African context. Others are not. The plan lists six "pillars," among them "Good Governance and a Capable State," "Human Resource Development and a Knowledge-Based Economy," and "Private Sector-Led Development," with a particular emphasis on new industries that can draw workers away from subsistence agriculture and contribute to the growth of a middle class (Republic of Rwanda, [2012](#)). Chinese firms have invested in several such industries, notably mining, manufacturing, and technology. Across these three sectors, there is an oddly inverse relationship between the amount of dollars being invested and the amount of publicity they receive. Using private data from the Rwandan Development Board, Eom ([2018](#), p. 9) reports that at the time of her publication Rwanda had received \$409 million in Chinese investment in construction, real estate, and tourism; \$70.7 million in mining and quarrying; \$40.2 million in manufacturing; and \$4.4 million in services and ICT. The construction, real estate, and tourism category is driven by one large investor. This sector is not mentioned in the Vision 2020 source document and will be discussed subsequently in its own section. Of the three involving "industry" more traditionally defined, mining and quarrying have drawn the largest sums of money, but both sides have been relatively quiet about the details. Manufacturing is a smaller destination but due to its centrality to Rwandan economic development

hopes has received substantial attention in the media and from the leadership of both China and Rwanda. Information technology is smaller still, but has also played a role in Sino-Rwandan diplomacy. I cover each of these three in turn.

Of the \$70.7 million in the mining sector, \$30 million came from Fuxin Jiuxing Science and Technology, a small firm from China's Northeast (KT Press, 2017). Another portion of it may come from a quarry being rehabilitated to supply Chinese road builders with crushed stone (KT Press, 2018). For Fuxin Jiuxing's investment, little is available to indicate what was being mined or whether the project is actually operational. Rwanda's primary mineral export is tantalum, which is used for capacitors in many electronic goods. Tantalum exports, though, do not exceed \$40 million per year.⁵⁴ In an annual report, China's Ministry of Natural Resources writes that "following the results of Chairman Xi Jinping's meeting with the President of Rwanda, the plan to assess Rwanda's national mineral resources is being implemented."⁵⁵ (Ministry of Natural Resources, PRC [中华人民共和国自然资源部], 2018, p. 47) The document refers to an agreement during Xi's July 2018 visit to Kigali to assist Rwanda in surveying for minerals. The first geologists arrived in Rwanda in December 2019 (Buningwire, 2019). The project does not overtly focus on any one type of mineral, although known deposits would imply that the odds are in favor of tantalum, or perhaps tin or tungsten. The geologists are state-sponsored and could have some diplomatic value to China. As the Chinese Ambassador put it, "It is our pleasure if Rwanda gains from the experienced people in mining. We hope this will contribute to the economic development of the country." (Buningwire, 2019) Pending the results of the survey, further Chinese investment might be forthcoming. At the same time, though, mining has

⁵⁴ As of 2017, per Simoes and Hidalgo (2011).

⁵⁵ Author's translation from original Chinese: 积极落实习近平主席同卢旺达总统会谈成果, 推进卢旺达全国矿产资源潜力评价项目组织实施。

received much less attention in diplomatic announcements and press articles than other areas which have received less investment. Mineral extraction's checkered history in Africa may limit its value as a tool for publicity. It also tends to be more capital-intensive and employ fewer people: the Rwanda Development Board estimates jobs created at 1,206 for Chinese-invested mining but 3,498 for manufacturing, despite mining having received more investment dollars.⁵⁶

There is more publicity value, then, around a type of activity much less familiar in Africa: manufacturing. The Rwandan Development Board has stated that through 2016, manufacturing is the largest category in terms of the number of Chinese investments (KT Press, 2017). The dollar value of each is relatively small, usually less than \$2 million. These produce a mix of products ranging from building materials to textiles to sanitary napkins to wooden doors (KT Press, 2017; Kuo, 2016a). Much of this has centered around the tax-incentivized Kigali Special Economic Zone (SEZ). SEZs themselves draw on China's history of opening to global commerce by providing incentives to invest in particular zones (Steenbergen and Javorcik, 2017, pp. 10–13). The Kigali SEZ has always been a Rwandan-led initiative, but Chinese firms' participation in it can nevertheless be symbolically powerful. The previous section mentioned that two major Chinese construction contractors⁵⁷ have their headquarters in the SEZ. Optics aside, the zone is not particularly Chinese. Steenbergen and Javorcik (2017, p. 22) find that China is second among foreign investors in the zone with 7 percent of firms, behind India (8 percent) and well behind Rwanda itself (34 percent). In lieu of uniquely impressive overall statistics, Chinese diplomacy relies on one central case: C&H Garments.

From the Industrial Revolution in England to parts of South and Southeast Asia today, tex-

⁵⁶Eom (2018, p. 9). It is unclear if this is a projection or a count of people already employed.

⁵⁷Beijing Construction Engineering Group (BCEG) and China Star Construction.

tiles have often been the first rung in the ladder of industrialization. They tend to be highly labor-intensive, meaning that factories in countries like Rwanda need only modest investments in physical capital to readily employ many people drawn away from subsistence agriculture. As a landlocked country with little industrial base, Rwanda thus welcomed the arrival of C&H Garments. Co-founded by Helen Hai, the former Ethiopia general manager of Huajian (one of the world's largest shoe manufacturers) and Candy Ma, the owner of Future Garments in Kenya, C&H had already been active in Kenya before expanding to Rwanda. Both co-owners had previously run African manufacturing operations employing several thousand people apiece (Eom, 2018, pp. 11–12). In 2013, co-founder Helen Hai visited Kigali alongside Justin Yifu Lin, the former World Bank Chief Economist and author of many cornerstone works of Chinese development finance strategy discussed in Chapters 2 and 3. Hai and Ma are both private entrepreneurs and have been careful to emphasize that they are not funded by the Chinese government, but both the Chinese Ministry of Foreign Affairs and the office of Paul Kagame issued press releases about the visit, which had clear political overtones (Kagame, 2013; New Times, 2013). Hai is also a Goodwill Ambassador for the United Nations Industrial Development Organization,⁵⁸ and her arrival alongside the former World Bank Chief Economist indicates a cachet among major multilateral institutions which is easier to accomplish for equity investors than for firms receiving tied loans at the expense of cooperation with non-Chinese.

In 2014, C&H began operations in Rwanda, committing to \$10 million in investments over five years (Agutamba, 2016). Rwanda's governance environment was a factor in the decision. Hai told reporters that "I have to say Rwanda has amazing leadership, otherwise I wouldn't take [Ma] to Rwanda and also she would not make the decision [to set up in

⁵⁸Agutamba (2016).

Rwanda]”⁵⁹ Rwanda’s generous tax treatment within the SEZ is predicated on trust in the leadership not to roll back the original deal once C&H had invested, and Rwanda’s general adherence to the rule of law—at least where party or military interests are not concerned—made this possible. More broadly speaking, rising Chinese labor costs could also disproportionately affect light manufacturing industries like textiles, leading to an opening for offshoring alongside many construction industries more traditionally affiliated with Belt and Road (Steenbergen and Javorcik, 2017, p. 18).

By 2016, though, C&H did find itself affected by political developments. In that year, the East African Community (EAC), of which Rwanda is a member, pledged to stop imports of used clothing by 2019. Many Africans have historically relied on cheap used clothing brought in predominantly from developed markets, and the ban was meant to reduce competition for local producers (Kuo, 2016b). In 2018, the United States (a major used clothing exporter) responded by revoking Rwanda’s privileges under the African Growth and Opportunity Act (AGOA), a law granting duty-free status to many African goods (Trump, 2018). American tariffs left C&H in a difficult position. EAC rules only allow for favorable tax treatment in zones like the Kigali SEZ if at least 80 percent of production is exported outside the EAC, and the loss of a major market made this more difficult to accomplish (East African Community, 2004, Article 25).

The downside risk that has emerged with Rwanda’s trade spat with the United States took place within the context of Rwandan rule of law. The decision was made in tandem with other EAC countries through normal legal channels, although its compliance with World Trade Organization rules is debatable. It does, though, illustrate the challenges faced by private investors in pioneering new sectors. As of 2016, co-founder Candy Ma stated pub-

⁵⁹Manson (2015), quoted in Eom (2018, p. 13).

licly that C&H was still not yet profitable, and the 2018 loss of the American market could not have helped (Kuo, 2016b). The 2019 enactment of the African Continental Free Trade Agreement (AfCFTA) could alleviate the situation by improving access to African markets outside the EAC, but this cannot fully make up for a major importer like the United States (Kwemo, 2019). There are also problems with the short-term economic fundamentals of the Rwandan textile industry. It costs more to ship from Kigali to the Kenyan port of Mombasa than from Mombasa to Guangzhou, where many of C&H's inputs are sourced (Kuo, 2016b). Improved infrastructure could reduce landlocked Rwanda's cost disadvantage over time but can never fully eliminate it. In the meantime, Rwandan manufacturing is still not cost-competitive with other emerging manufacturing hubs in Asia and Ethiopia. A common criticism of the used clothing ban is that it has mostly benefited imports of new clothing from Asia, thereby costing East African consumers more without creating many jobs locally.⁶⁰

C&H Garments' net impact on Sino-Rwandan relations must be assessed differently in the short and long terms. In the short term, it is symbolically powerful but economically modest. It has already shown its diplomatic value. The Chinese Ambassador visited the factory in 2017 (Chinese Embassy in Rwanda, 2017). On a separate occasion, Paul Kagame also made a visit to the Kigali SEZ, including a stop at C&H Garments (C&H Garments LTD, 2017; Republic of Rwanda, 2017). The used clothing ban has made C&H's contribution even more politically important as a symbol of Rwandan upgrading from the rich world's castoffs.

Any substantive economic benefit to Rwanda, though, is likely to take place only in the

⁶⁰In the short term, these imports are mostly coming from China, although this is likely to change as the textile industry continues to migrate to South and Southeast Asia. See Steenbergen and Javorcik (2017, p. 20) and T. John (2018).

longer term. Despite the difficulties, C&H is doubling down, adding a second factory and focusing more on domestic sales and exports to Europe. Even with the second plant, C&H only employs 1,200 Rwandans (Xinhua, [2018c](#)). One journalist who interviewed Candy Ma writes that she “anticipates more Chinese production moving to Africa as Southeast Asia becomes saturated with Chinese factories searching for cheaper locations. She will still have been the first in Rwanda.” (Kuo, [2016b](#)) Most private entrepreneurs do not operate with this time horizon and are generally opting for Asian markets which turn profits today. One report from a UK-based development think tank refers to C&H as an “unusually visionary foreign [company]” (Booth, Calabrese, and Golooba-Mutebi, [2017](#), p. 26). The real question, then, becomes how many will follow in C&H’s footsteps. So far, there have been some modest results. Pink Mango C&D, another private Chinese firm, in 2019 started a new Kigali Garment Centre. It currently employs 450 Rwandans, and the Rwandan Development Board projects that it could directly or indirectly generate up to 7,500 jobs over five years (Nkurunziza, [2019](#); Rwanda Development Board, [2019](#)). This is a major contribution relative to Rwanda’s current industrial base, but not relative to its population of 12 million. The type of much deeper economic ties seen in many Asian markets or Ethiopia would require stronger near-term economic fundamentals. Private investment can contribute to Chinese diplomacy but is limited by the strength of local business opportunities.

This brings us to the last type of Chinese investment, which is even smaller and more speculative. Mobile and networking technology could be as transformative in Africa as it has been elsewhere. Rwanda’s Vision 2020 makes extensive references to technology as a catalyst for growth. It specifies that:

[...] the government of Rwanda will encourage the use of ICT as a tool for self employment, innovation and job creation. Policies to encourage development of smart applications that meet economic needs and develop economic poten-

tial will be promoted amongst the youth. ICT as a tool for improving service delivery in both the private and public sector will be emphasized. (Republic of Rwanda, 2012, p. 18)

The applications of improved network technology in the Rwandan context are numerous, and Chinese firms are involved in several of note. Shenzhen tech giant Tencent is partnering with the UK's Babylon Health to use mobile technology and artificial intelligence to connect rural Rwandans to doctors and predict health problems as they emerge (Ram, 2018; Sturman, 2018). Huawei in 2017 committed to build a regional data center in Rwanda and expand the country's broadband network. The memorandum of understanding also included collaboration on smart grid and education technology (Huawei [华为] 2017).⁶¹ Alibaba, for its part, has expanded its electronic World Trade Platform (eWTP) to Rwanda. The eWTP is an online service connecting small businesses to global markets, with a particular focus on emerging markets. Alibaba was already enormously successful in using network technology to connect small Chinese firms to customers nationwide. This type of connectivity could be transformative in a country where production is often on a very small scale or within households. The platform is already being used to market Rwandan coffee beans, a major export, in China (Karuhanga, 2019; Ministry of Trade and Industry of Rwanda, 2019). Rwandan government officials hope that other agricultural products could soon follow (D. Chan, 2019; Ministry of Trade and Industry of Rwanda, 2019, p. 12).

Of course, there is an obvious limitation to technological upgrading in a country like Rwanda. A shortage of human capital presents a major constraint. As Rwanda's own Vision 2020 document puts it,

Rwanda lags behind in professional training, with shortages in the fields of applied and natural sciences and ICT. Although the country will continue to

⁶¹Little has been implemented to date, but this could certainly change.

rely on imported technology from advanced countries, well-trained specialized nationals will be essential to the running and maintenance of technological systems, ranging from medicine and agriculture to industry and telecommunications. (Republic of Rwanda, [2012](#), p. 11)

Huawei and Alibaba are both involved in technical training. Huawei sponsors an annual competition in which Rwandans submit proposals for new uses of technology in their home country. Eight per year win scholarships to study in China (Bizimungu, [2018](#)). Alibaba admits twenty Rwandans per year to study at the Alibaba Business School in the same Chinese city as corporate headquarters (Karuhanga, [2019](#)). Equity investment here begins to blend with aid. Huawei is a private firm, but with fairly close ties to the Chinese state. Alibaba is also private and overall somewhat more aloof from the government but in this case has collaborated closely with provincial officials. The scholarships for the Alibaba Business School are funded by the government of Zhejiang Province, where Alibaba is headquartered. Some are also done in conjunction with the eFounders program, a joint venture of Alibaba and the United Nations Conference on Trade and Development (UNCTAD). Alibaba's memorandum of understanding with Rwanda was signed during a visit by company chief Jack Ma, a well-known public figure in his own right, and Zhejiang Governor Yuan Jiajun, a trained engineer who once headed China's space program (Karuhanga, [2019](#)).

Mining investment employed relatively few Rwandans and has only secondary public relations or diplomatic value. Industrialization is much more labor-intensive and diplomatically useful but is constrained by Rwanda's relative lack of profitability. Technology employs fewer people and requires less capital expenditure than either mining or manufacturing. As of 2018, Rwandan Development Board estimates put Chinese investment in ICT at \$600,000, leading to 30 Rwandan jobs (Eom, [2018](#), p. 10). This number has almost cer-

tainly risen since then, but the overall value created for users of the technology may be much higher than the immediate impact via local employment or investment. With some government help in dealing with the shortage of human capital, Chinese (and many other) tech firms have come closer to meeting Rwandan hopes than has happened for manufacturing, where immediately profitable investment opportunities are few and far between. Equity investment is useful for diplomacy, but as moderated by the nature of investment and the ability of the concerned country and/or sector to draw capital.

C. Real Estate and Tourism As discussed previously in this chapter, Rwandan businessman Sekoko Hatari contracted Chinese builder CCECC for the Kigali City Tower and Downtown, Ltd. real estate projects. Hatari has since co-invested with a Hong Kong businessman Billy Cheung in two more projects with a similar focus on high-end real estate. Both have a degree of prestige value and fit into the Rwandan government's plan to attract high-end tourism and conference travel, but neither have any apparent connection to the Chinese government. Cheung's company, Master Assets, does maintain a presence in the mainland city of Guangzhou, where he was born, but it is otherwise more "multinational" than "Chinese." It is privately held, headquartered in Hong Kong, and employs a veteran of major international firms including Philip Morris and Heineken as CEO (Ltd., [2020a](#)). Master Assets' partnership with Hatari is similar to Hatari's earlier Kigali City Tower project in that it might indirectly contribute to China's image in the region, but based on local business opportunities rather than coordination with the Chinese state.

The first of the two investments was the Marriott Hotel in Kigali. Co-owned by Cheung and Hatari but operated by Marriott, the hotel was one of the first high-end establishments to enter Rwanda and implies a vote of investor confidence (Everitt, [2016](#)). The \$60 million building was Marriott's first foray into sub-Saharan Africa and Rwanda's largest hotel.

The hotel's opening had both economic and political overtones. In the economic sphere, it could obviously cater to visiting executives or investors. The owners of the hotel have added a small apartment building nearby; the company website describes them as "perfect as a corporate housing option for executives looking for a luxury long stay in Kigali" (Ltd., 2020b). The timing of the hotel's opening suggests a minor role in regional diplomacy as well. The hotel opened just in time for the 2016 African Union Summit in Kigali, and its grand opening was attended by the CEO of the Rwanda Development Board and the Rwandan Minister of Trade and Industry (Hope Magazine, 2016a; C. Omondi, 2012). This was not just a signal of Rwanda's strength to investors; it was also a signal of Rwanda's outsized role in regional politics.

The second of the two investments is much larger. Still under construction as of this writing, the \$200 million Century Park complex will include both high-end housing and two hotels, one of which is slated to be operated by Sheraton. Located next to Kigali Golf Course in an upscale neighborhood outside the city center, the project has similar implications to the Marriott's for Rwanda's plan to draw international tourism. (It also happens to be located between downtown Kigali and the airport.) The groundbreaking ceremony paralleled the Marriott's opening in that it was attended by high-profile Rwandan officials, in this case including the Minister of Infrastructure and the Mayor of Kigali (Gasore, 2014; New Times, 2015a). Revenues from the construction contract are going to a Chinese firm: CCECC, which had already built two projects for Hatari, was brought in for this one as well (Hope Magazine, 2018b). This was not, though, a closed-bid, Chinese-only arrangement. The funding came from Kenya Commercial Bank,⁶² and the private Rwandan-Hong Kong ownership has more obvious ties to Rwanda's elite than to China's.

⁶²Bonface (2017).

5.2.2.3 Summary: Equity Investments

This section has illustrated both qualitative and quantitative variations in equity investment. In qualitative terms, different types of equity investments can be better suited toward diplomatic or commercial investments. Equity in general lies in the middle of the spectrum between aid, which is more concessional and oriented toward diplomacy, and loans, which demand more of the recipient but are better for Chinese commercial interests. Some equity investments may lean toward one of the end of the spectrum or another. StarTimes' state-sponsored move into African airwaves may have asked the Burundian government to take on (highly concessional) debt but was a generally favorable development from the perspective of a regime hoping to exercise greater control over the media and represented an outlay of cash from China's government balance sheet. This contributed to China's relationship with the Burundian leadership. The more unambiguously private Hong Kong investors behind the Marriott Hotel and Century Park projects did not require Chinese state financial support but were also less salient to bilateral relations. These were scarcely mentioned in official Chinese documents.⁶³

The above cases both involve appreciable commitments of Chinese capital, but this is not always the case. There is also quantitative variation in equity investment. In any economy, some sectors are more competitive than others, and some will simply struggle to attract capital. In Rwanda's case, the manufacturing sector has difficulty keeping up with lower-cost competitors. Only particularly committed investors like C&H have chosen to fight this uphill battle, although more could follow over time. Nevertheless, the desire for a well-paying industrial sector is such that the Chinese and Rwandan governments make it a central part of their diplomatic relationship. A \$10 million apparel company has received more atten-

⁶³One Chinese Embassy release does mention the Century Park project in passing. See Embassy of the People's Republic of China in Rwanda 【中华人民共和国驻卢旺达共和国大使馆】 (2011).

tion than \$260 million in hotel and luxury housing investments. The technology sector is even smaller but is still subject to a degree of hype. The Chinese government, though, has been more directly involved in technology. The costs of training a few Rwandan engineers are manageable enough. Training tens of thousands of Rwandan factory workers and keeping them employed in loss-making ventures would not be. On a related note, what could be the early stages of greater Chinese involvement in Rwanda's modest mineral sector could generate a greater flow of capital but a smaller increase in employment. This has been only a secondary talking point for leadership and diplomats.

5.3 Conclusion

Before China was as large a player in global development finance as it is today, it was already known that donors frequently face trade-offs between less stringent financial terms which will be well-received in the recipient country or more stringent terms which will more likely secure repayment. In the context of the Bretton Woods institutions, this usually meant policy conditionality or something similar. The past two chapters have established that the same trade-off applies to China but manifests itself very differently as filtered through different institutions and historical experience. Most Chinese policymakers do not see "aid" and "business" as necessarily separate. The closest distinction that exists for China would be between smaller projects implemented via the Ministry of Commerce and larger ones involving state-owned construction firms and (sometimes) state-owned banks. In the former category, grants are usually better for diplomatic purposes, while zero-interest loans are better for China's state budget.

This chapter has covered larger items. Itself a developing country, China faces popular

and budgetary pressure not to expend too many resources on projects that do not achieve at least some financial return. The easiest way to do this is by doing nothing; or, more specifically, by allowing firms to handle projects on their own, perhaps with an occasional financial nudge. China's own developmental history has generated several decades of entrenched cronyistic relations between banks and construction firms, and the cheap credit which many receive as a matter of course allows them to compete internationally at even lower prices than they would have otherwise. Discount sales of construction projects can produce diplomatic benefits, as no less a figure than Xi Jinping acknowledged during a state visit to a small African country. The obvious drawback is that even with their normal diet of cheap credit, construction contractors will desire at least moderately reliable funding and will be reluctant to take on very high levels of risk. In the cases where Chinese firms enter despite political risk—e.g., the Kigali Convention Center—the consequences often illustrate why more firms do not make similar gambles.

In other cases, a more active approach is necessary. This could mean equity investments. Equity can be reasonably good for diplomacy in that it does not burden the recipient with debt and it represents a long-term commitment beyond the completion of construction. However, long-term commitments are naturally more susceptible to political risk, and equity investors may also shy away from higher-risk areas. Numerous null coefficients in the quantitative evidence put equity in a gray area between more diplomatically friendly modalities and commercially demanding loans. The qualitative evidence illustrates significant within-category variation. Some projects (notably StarTimes' television broadcasts) have obvious political benefits and draw Chinese state resources. Political risk in Burundi slowed StarTimes' investment process, but only under extreme circumstances of violent unrest, and not indefinitely. The unclear barrier between even private investors like StarTimes

and China's state coffers enables a different type of risk-tolerant, potentially politicized equity investment than is typically covered in the private multinational-focused literature. However, some Chinese investments are more similar to those from other countries; for example, the Marriott Hotel in Kigali was a joint venture between a private Hong Kong firm and a private Rwandan firm and was scarcely mentioned by Chinese diplomats.

Even with state support, though, open-ended equity investments in high-risk markets have the potential to become a never-ending drain on China's state budget. An arrangement with more insurance against risk and less of a firm long-term commitment might be necessary. This is where tied loans come in. The chummy relations between policy banks and favored state-owned firms at home is here exported overseas as Exim and CDB maximize the share of contract value going to Chinese firms; leave the host government with the bill; and use their resources as an unwritten insurance policy for the Chinese contractors. This arrangement is less amenable for diplomatic relations than freelance contracting, which avoids the politics of debt and leaves the host government feeling that it has more choice in the matter. As seen in Rwanda's road-building drive, tied procurement also drives up costs by inhibiting competition—good for Chinese firms, but not for warm feelings between the two concerned capitals. In some cases, this is unfeasible simply because borrowers with stronger institutions will have access to many different sources of financing and will feel no need to take on onerous Chinese conditions. This was certainly true in Rwanda, but does not explain the similar lack of loans to Burundi.

From China's perspective, there must be some benefit to offset the diplomatic costs of tied loans. For particularly large or lucrative contracts, this may be purely commercial. Rwanda received a loan of over \$200 million for its largest-ever dam, but for little else. In many instances, though, we must begin to look beyond the basic trade-off between diplomatic and

commercial interests to explain where tied loans are deployed. By extension, this means looking at factors which are typically under-explored in existing academic theory on development finance. The next two chapters add two more independent variables in order to do this. Chapter 6 extends this chapter's findings of an interactive effect between resource security and political risk and adds another type of financing: resource-backed loans. Collateralization with natural resources is the toughest arrangement in China's toolkit and is used for resource-rich economies where political risk keeps most others away. Here, I compare China's use of oil-backed loans amid increasing political risk in Ecuador with a series of equity investments facilitated by the stronger institutions of copper-rich Peru. Chapter 7 then focuses on geostrategic interests. Quantitative evidence and a comparison of lower-risk, more lucrative Kazakhstan with higher-risk Pakistan demonstrates that loans are more often used when there are high levels of risk *and* geostrategically important projects that (from China's perspective) simply need to be built. In these instances, China will sometimes mix loans for strategically central projects with more diplomatically friendly equity investments, cut-rate construction contracts, and/or aid in order to offset the costs to bilateral relations.

5.4 Appendix

Table 5.5: Contracts and Loans, Commitment Basis, Resource Interactive Term, African / Latin American Sample

	(1) Tobit: Contracts (AEI)	(2) Tobit: Loans (SAIS-IAD)	(3) Tobit: Contracts (AEI)	(4) Tobit: Loans (SAIS-IAD)
Taiwan recognition	-6.178***	-26.24***	-6.052***	-26.19***

Continued on next page

Table 5.5: Contracts and Loans, Commitment Basis, Resource Interactive Term, African / Latin American Sample

	(1) Tobit: Contracts (AEI)	(2) Tobit: Loans (SAIS-IAD)	(3) Tobit: Contracts (AEI)	(4) Tobit: Loans (SAIS-IAD)
(binary)	(-4.77)	(-22.05)	(-4.16)	(-21.26)
UNGA voting similarity	2.705	1.195	2.541	0.980
with China (one-year lag)	(0.57)	(0.26)	(0.54)	(0.21)
Chokepoint (binary)	3.110	0.791		
	(1.55)	(0.48)		
BRI route (binary)			2.309	2.050
			(1.37)	(1.52)
Distance from China (pop.- -weighted; thousands <i>km</i>)	-0.187	-0.288	-0.123	-0.169
	(-0.82)	(-1.47)	(-0.47)	(-0.82)
Commodity exports to China (log; one-year lag)	0.254	-0.0353	0.210	-0.0394
	(0.99)	(-0.22)	(0.83)	(-0.26)
Total imports from China (log; one-year lag)	0.144	-0.103	0.496	-0.0247
	(0.13)	(-0.12)	(0.46)	(-0.03)
Rule of Law (WGI; one-year lag)	7.913***	6.685***	7.661***	6.958***
	(2.65)	(3.24)	(2.66)	(3.62)
Rule of Law × commodity exports	-0.820***	-0.693***	-0.777***	-0.695***
	(-3.44)	(-4.44)	(-3.48)	(-4.81)
Polity score (one-year lag)	0.00368	-0.0197	-0.0591	-0.0554
	(0.03)	(-0.24)	(-0.56)	(-0.73)
Debt-to-GDP ratio (log; one-year lag)	-0.940*	0.368	-0.949*	0.231
	(-1.79)	(0.74)	(-1.72)	(0.48)
GDP per capita (log)	-0.0344	-0.0913	-0.259	-0.307
	(-0.04)	(-0.12)	(-0.27)	(-0.41)
Population (log)	0.956	0.392	0.719	0.292
	(1.12)	(0.54)	(0.86)	(0.41)
English language (binary)	1.840**	0.985	1.730**	1.058
	(2.06)	(1.31)	(1.98)	(1.48)
Time (Y2000 = 1)	1.763***	0.621*	1.713***	0.623*
	(2.71)	(1.87)	(2.65)	(1.87)
Time ²	-0.0507*	-0.0244	-0.0486*	-0.0244
	(-1.96)	(-1.63)	(-1.90)	(-1.64)
Constant	-33.97***	-7.497	-33.29***	-6.004
	(-3.93)	(-0.86)	(-4.06)	(-0.71)
Countries	72	72	72	72
Start Year	2005	2000	2005	2000
End Year	2017	2018	2017	2018

Continued on next page

Table 5.5: Contracts and Loans, Commitment Basis, Resource Interactive Term, African / Latin American Sample

	(1) Tobit: Contracts (AEI)	(2) Tobit: Loans (SAIS-IAD)	(3) Tobit: Contracts (AEI)	(4) Tobit: Loans (SAIS-IAD)
Observations	888	1007	888	1007
Clustered SE?	✓	✓	✓	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from American Enterprise Institute (AEI) and SAIS-CARI + Inter-American Dialogue (SAIS-IAD).

Table 5.6: Equity Investment, Commitment Basis, Western Hemisphere Sample

	(1) Tobit RED ALC
Taiwan recognition (binary)	-5.600*** (-3.15)
UNGA voting similarity with China (one-year lag)	10.61 (1.51)
Chokepoint (binary)	7.721*** (4.80)
Distance from China (pop.- weighted; thousands <i>km</i>)	-0.0835 (-0.27)
Commodity exports to China (log; one-year lag)	0.448 (1.05)
Total imports from China (log; one-year lag)	0.783 (0.63)
Rule of Law (WGI; one-year lag)	0.166 (0.24)
Polity score (one-year lag)	-0.0120 (-0.05)
Debt-to-GDP ratio (log; one-year lag)	-0.401 (-0.58)
GDP per capita (log)	-1.390 (-1.21)
Population (log)	1.232 (1.04)
English language	3.616***

Table 5.6: Equity Investment, Commitment Basis, Western Hemisphere Sample

	(1)
	Tobit
	RED ALC
(binary)	(4.05)
Time (Y2000 = 1)	1.060*
	(1.73)
Time ²	-0.0329
	(-1.25)
Constant	-39.57***
	(-3.53)
Countries	23
Start Year	2000
End Year	2017
Observations	357
Clustered SE?	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from RED ALC (Dussel Peters, [2019](#)).

Chapter 6

Resource Security

Resource-backed loans are the most stringent of China's financing methods. Asking countries to mortgage commodities which in some cases make up a large portion of their economies is a tough measure and will only be taken where Chinese lenders feel concerned enough about political risk and borrowers have few other options on the table. The first section of this chapter uses statistical analysis to establish that resource-backed loans are targeted at countries rich in mineral wealth and weak in governance, even in comparison with regular cash-based loans.

The two subsequent sections compare the cases of Ecuador and Peru. Side-by-side and far from China's more Eurasian-focused geostrategic concerns,¹ Ecuador and Peru are nevertheless important to Chinese interests for their oil and copper, respectively. Following Rafael Correa's 2007 election to the Ecuadorian presidency, Ecuador undertook a series of major policy changes including forcing renegotiation of foreign oil investors' contracts and

¹As will be discussed later in this chapter, they have some geostrategic significance with respect to proposed overland transportation routes which could provide an alternative to the Panama Canal. From China's perspective, however, trans-South American connectivity is a much lower priority than Eurasian connectivity.

electing to default on part of its sovereign debt. These actions undermined global investor confidence that Ecuador would honor previous contracts, leaving a void for China to fill. The result was oil-backed loans. Peru, on the other hand, has a stable bureaucracy which effectively administers foreign investment, albeit with a tangible corruption problem on the part of elected officials. In Peru's less isolated and more stable (if imperfect) institutional environment, China took a very different path, making a series of equity investments in deposits of copper bound for Chinese factories.

6.1 Quantitative Analysis

6.1.1 Data and Methods

The independent variables used in this section are the same as in previous chapters and were introduced in Section [4.1.1.1](#).

Data on resource-backed loans, though, is scarcer and derived some many different sources. Of the three data sources for loans used in this dissertation, Atkins et al. ([2017](#)) provides information on which loans are backed by resources,² but Dreher, Fuchs, Parks, et al. ([2018](#)) and K. P. Gallagher and Myers ([2019](#)) do not. For the latter two, I use available lists of resource-backed deals from Foster et al. ([2009](#)), Erica S. Downs ([2011](#)), Bräutigam and K. P. Gallagher ([2014](#)), Bräutigam and Hwang ([2016](#)), K. P. Gallagher, Kamal, et al. ([2016](#)), Meidan ([2016](#)), Atkins et al. ([2017](#)) and Gholz, Awan, and Ronn ([2017](#)) to establish which loans are collateralized with commodities. These sources all present data on a commitment basis, so I do the same for this section. For extra certainty, I also performed

²The author thanks Deborah Bräutigam, Jyhjong Hwang, and Jordan Link for providing and assisting with this data.

Google searches of each country's name along with "China" and terms including "loan," "commodity-backed," "resource-backed," and "oil-backed."

Most resource-backed deals begin with large lines of credit which are later broken up into individual projects. This makes matching between the published lists of resource-backed deals and the Latin American data from K. P. Gallagher and Myers (2019) relatively straightforward, since K. P. Gallagher and Myers (2019) lists lines of credit and not individual projects. However, AidData often breaks down larger package deals or lines of credit into constituent projects. In most instances, these projects can be matched to a cash- or resource-based line of credit using AidData's project descriptions, AidData's listed sources, and Internet searches. However, even after these measures, a few projects' resource-backed status remained unclear. Because of this issue, I coded two separate sets of resource-backed loan models: a "low" scenario excluding the questionable cases and a "high" scenario including them. In practice, these borderline cases are a manageable issue: the difference is between 29.3 and 31.8 percent of total loans, and the statistical results do not appreciably change.

In this section, I present the results using the global AidData dataset (Dreher, Fuchs, Parks, et al., 2018). This is done in two tables: one (Table 6.1) using borders and chokepoints to operationalize geostrategic importance and another (Table 6.2) using the BRI binary. Both of these tables use the "high" scenario coding borderline cases as resource-backed instead of cash-based. This scenario was found to yield more moderate results and is employed as the more conservative measure. Tables 6.9 and 6.10 in this chapter's Appendix present the same models for the "low" scenario. Also in the Appendix are Tables 6.11 and 6.12 running the same models on Africa and Latin America-focused data from SAIS-CARI (Atkins et al., 2017) and the Inter-American Dialogue (K. P. Gallagher and Myers, 2019). The first of

these tables uses the chokepoint variable³, and the second uses the BRI binary.

All statistical tables for resource-backed loans follow the same format. Column 1 presents a Tobit model of total loans; Column 2, a Tobit model of simple cash loans; Column 3, a Tobit model of resource-backed loans; and Column 4, a logistic model of $\frac{\text{Resource-backed loans}}{\text{Total loans}}$. This fourth model directly compares cash and resource loans, but loses many observations for country-years in which neither were extended. The dependent variables of the first three models are all transformed according to the formula $\ln(x + 1)$.

6.1.2 Results and Analysis

Table 6.1: Cash vs. Resource-Backed Loans, Commitment Basis, “High” Scenario (AidData; Global Sample), Borders and Chokepoints Specification

	(1) Tobit: Loans	(2) Tobit: Cash	(3) Tobit: Resource	(4) Logit: % Resource
Taiwan recognition (binary)	-29.63*** (-21.80)	-29.77*** (-22.25)	-51.91*** (-6.34)	
ASEAN member, SCS disputant (binary)	-2.230* (-1.93)	-2.162* (-1.79)	-55.02*** (-5.78)	-13.14*** (-9.77)
ASEAN member, SCS non-disputant (binary)	1.702 (0.87)	2.010 (1.04)	1.864 (0.39)	-2.403* (-1.70)
UNGA voting similarity with China (one-year lag)	10.50*** (2.68)	9.430** (2.35)	24.47* (1.76)	6.549** (2.21)
Border with China (binary)	1.838 (1.55)	2.130* (1.73)	2.866 (0.90)	-0.859 (-1.07)
Chokepoint (binary)	-0.782 (-0.76)	-0.461 (-0.47)	-9.176** (-2.26)	-1.336 (-1.64)
Distance from China (pop.- weighted; thousands <i>km</i>)	0.302** (2.11)	0.285** (1.98)	1.345*** (3.10)	0.143 (1.36)
Commodity exports to China (log; one-year lag)	-0.0334 (-0.20)	-0.0452 (-0.29)	0.317 (0.58)	0.146 (0.91)
Total imports from	1.978**	1.917**	5.959**	1.084*

Continued on next page

³The border variable was dropped for the Africa/Latin America sample.

Table 6.1: Cash vs. Resource-Backed Loans, Commitment Basis, “High” Scenario (AidData; Global Sample), Borders and Chokepoints Specification

	(1)	(2)	(3)	(4)
	Tobit: Loans	Tobit: Cash	Tobit: Resource	Logit: % Resource
China (log; one-year lag)	(2.39)	(2.25)	(2.55)	(1.68)
Rule of Law (WGI; one-year lag)	2.516 (1.06)	1.505 (0.65)	20.89*** (3.36)	3.735** (2.22)
Rule of Law × commodity exports	-0.401** (-2.21)	-0.258 (-1.53)	-2.179*** (-5.52)	-0.447*** (-3.69)
Polity score (one-year lag)	-0.0586 (-0.85)	-0.0592 (-0.82)	-0.505** (-2.34)	0.00776 (0.13)
Debt-to-GDP ratio (log; one-year lag)	-0.808* (-1.82)	-0.734 (-1.64)	-1.824 (-1.33)	-0.651* (-1.77)
GDP per capita (log)	-2.366*** (-3.03)	-2.478*** (-3.17)	-5.631** (-2.35)	-0.756 (-1.21)
Population (log)	-1.023 (-1.50)	-0.922 (-1.33)	-4.050** (-2.19)	-0.877* (-1.78)
English language (binary)	1.556** (2.09)	1.573** (2.11)	3.743 (1.14)	0.130 (0.17)
Time (Y2000 = 1)	0.757*** (2.89)	0.683*** (2.60)	4.501*** (3.97)	0.495* (1.88)
Time ²	-0.0317** (-2.28)	-0.0251* (-1.81)	-0.251*** (-4.41)	-0.0348** (-2.36)
Constant	-10.86 (-1.51)	-9.778 (-1.36)	-55.07*** (-2.61)	-8.981* (-1.78)
Countries	124	124	124	86
Start Year	2000	2000	2000	2000
End Year	2014	2014	2014	2014
Observations	1499	1499	1499	488
Clustered SE?	✓	✓	✓	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from AidData (AD) with additional resource-backed loan variable coded by author.

Table 6.2: Cash vs. Resource-Backed Loans, Commitment Basis, “High” Scenario (AidData; Global Sample), BRI Specification

	(1) Tobit: Loans	(2) Tobit: Cash	(3) Tobit: Resource	(4) Logit: % Resource
Taiwan recognition (binary)	-29.20*** (-21.89)	-29.23*** (-22.64)	-51.05*** (-6.29)	
ASEAN member, SCS disputant (binary)	-1.057 (-0.82)	-0.989 (-0.72)	-49.88*** (-5.39)	-13.06*** (-9.41)
ASEAN member, SCS non-disputant (binary)	0.814 (0.47)	1.071 (0.63)	3.227 (0.62)	-2.284* (-1.79)
UNGA voting similarity with China (one-year lag)	7.184** (2.14)	6.142* (1.78)	21.90 (1.58)	6.832** (2.23)
BRI route (binary)	4.187*** (4.69)	4.384*** (4.97)	-0.0220 (-0.01)	-0.961 (-1.27)
Distance from China (pop.- weighted; thousands <i>km</i>)	0.504*** (4.79)	0.483*** (4.62)	1.409*** (2.90)	0.157 (1.42)
Commodity exports to China (log; one-year lag)	-0.0805 (-0.52)	-0.0901 (-0.63)	0.246 (0.42)	0.0493 (0.29)
Total imports from China (log; one-year lag)	1.671** (2.19)	1.572** (2.03)	5.428** (2.25)	0.905 (1.40)
Rule of Law (WGI; one-year lag)	4.270* (1.93)	3.316 (1.57)	19.59*** (3.03)	3.937** (2.45)
Rule of Law × commodity exports	-0.526*** (-3.06)	-0.385** (-2.51)	-2.139*** (-5.36)	-0.459*** (-3.97)
Polity score (one-year lag)	-0.0542 (-0.85)	-0.0572 (-0.86)	-0.491** (-2.38)	-0.0439 (-0.91)
Debt-to-GDP ratio (log; one-year lag)	-0.907** (-2.38)	-0.836** (-2.17)	-1.693 (-1.19)	-0.591 (-1.60)
GDP per capita (log)	-2.547*** (-3.36)	-2.632*** (-3.48)	-5.226** (-2.11)	-0.570 (-0.90)
Population (log)	-1.043 (-1.61)	-0.913 (-1.40)	-3.944** (-2.02)	-0.636 (-1.26)
English language (binary)	1.849*** (2.76)	1.862*** (2.79)	4.167 (1.17)	0.0490 (0.06)
Time (Y2000 = 1)	0.889*** (3.43)	0.815*** (3.12)	4.770*** (4.14)	0.566** (2.15)
Time ²	-0.0366*** (-2.69)	-0.0298** (-2.19)	-0.261*** (-4.59)	-0.0371** (-2.53)
Constant	-4.168	-3.122	-52.65**	-11.17**

Continued on next page

Table 6.2: Cash vs. Resource-Backed Loans, Commitment Basis, “High” Scenario (AidData; Global Sample), BRI Specification

	(1)	(2)	(3)	(4)
	Tobit: Loans	Tobit: Cash	Tobit: Resource	Logit: % Resource
	(-0.64)	(-0.49)	(-2.37)	(-2.09)
Countries	124	124	124	86
Start Year	2000	2000	2000	2000
End Year	2014	2014	2014	2014
Observations	1499	1499	1499	488
Clustered SE?	✓	✓	✓	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from AidData (AD) with additional resource-backed loan variable coded by author.

Tables 6.1 and 6.2 show very similar results, the only difference being the operationalization of geostrategic interests. I will base my analysis here on whichever of the two models happened to yield a more conservative estimate in any given instance.

Territorial disputes (H1) were, yet again, very strong predictors. Not a single country which recognized Taiwan or which has overlapping claims with China’s in the South China Sea received a resource-backed loan. When China reaches out to these countries, it will want to do so on more favorable terms to win them over. Borrowers, for their part, would be unlikely to pledge any important commodities to a party on the opposite side of a territorial dispute.

Territorial disputes were also negative predictors of cash loans, but not to the same extent. Some countries have received cash loans from China while hosting embassies from Taiwan, always in the context of potential shifting loyalties (as happened in Nicaragua and Nauru). This is not the preferred means of winning these countries over—aid is more concessional and used more frequently and in higher proportion—but it has been used. It is somewhat

unclear whether cash loans avoid South China Sea disputants—there is a negative correlation here when borders and chokepoints are used to measure geostrategic importance, but this does not hold up when the BRI variable is added. The correlation is negative but statistically insignificant ($p \approx 0.141$) when no measurement of geostrategic importance is included.⁴ With regards to the theoretical prediction that cash-based loans will avoid countries with territorial disputes with China, this is strong evidence for the Taiwan issue and lackluster evidence for the South China Sea. However, the evidence is overwhelming for the specific case of resource-backed loans.

The results for diplomatic alignment (H2) are surprising. While it was hypothesized that resource-backed loans would lead to cooler bilateral relations, they are actually highly positively correlated with UNGA voting alignment using AidData's figures. This may reflect reverse causality—mortgaging one's precious commodity deposits may not engender warm feelings, but it does create a powerful coincidence of cold interests which could spill over into diplomatic voting. However, this trend does not appear in the SAIS or IAD data (Tables 6.11 and 6.12 in the Appendix). The same was true of data for total loans (Chapter 7)—these showed a positive correlation with UNGA voting for AidData, but not the other datasets. So, it is difficult to treat this finding as particularly robust. Overall, these mixed results are best taken as a null finding for H2: not supportive of the theoretical prediction that resource-backed loans harm diplomatic alignment, but also not indicative that they help diplomatic relations. Resource-backed loans' creation of a high degree of economic interdependence may counteract the negative diplomatic effects of the demanding nature of the deals.

The results for geostrategic variables (H3) vary substantially by indicator. Table 6.3 shows

⁴These results are available from the author upon request.

Table 6.3: Geostrategic Interests and Cash vs. Resource-Backed Loans

Percentage change for:	Cash	Resource-backed
<i>Shared border</i>	171.0	Null
<i>Maritime chokepoint</i>	Null	-83.9
<i>Belt and Road</i>	723.4	Null

Assuming non-recognition of Taiwan and all other independent variables at mean.

Projections per Table 6.1, Columns 2 and 3 (borders and chokepoints); and 6.2, Columns 2 and 3 (BRI).

the percentage changes in cash and resource-backed loans associated with each of the three indicators. Cash loans are positively associated with both borders and especially location along the Belt and Road. This runs contrary to the original predictions, but as will be discussed in the next chapter is due to an interactive effect in which loans are channeled to projects of high national priority in high-risk countries otherwise avoided by firms. By all measures, geostrategically important countries draw a higher share of cash loans. China needs to maintain access through bordering countries, maritime chokepoints, and (after construction) Belt and Road infrastructure projects; bordering countries may also be home to sensitivities regarding transnational threats. China will be tough enough in its financing terms in these countries to make them palatable to firms, but will typically not want to risk bilateral relations by asking for resource collateralization. This is not an absolute trend—neighboring Russia and Turkmenistan, for example, have received oil- and gas-backed loans, respectively—but these are among the highest-risk markets on China’s periphery, and extra risk insurance may have been necessary here even at a cost to diplomatic relations.

The interactive effect between rule of law and commodity exports (H4 and H5) displays the primary purpose of resource-backed loans. Both cash and resource-backed loans display such an interactive effect, but the effect is much stronger for resource-backed loans. Figure

6.1 repeats the methodology used to generate 5.1 in the previous chapter, but differentiates between cash and resource-backed loans.

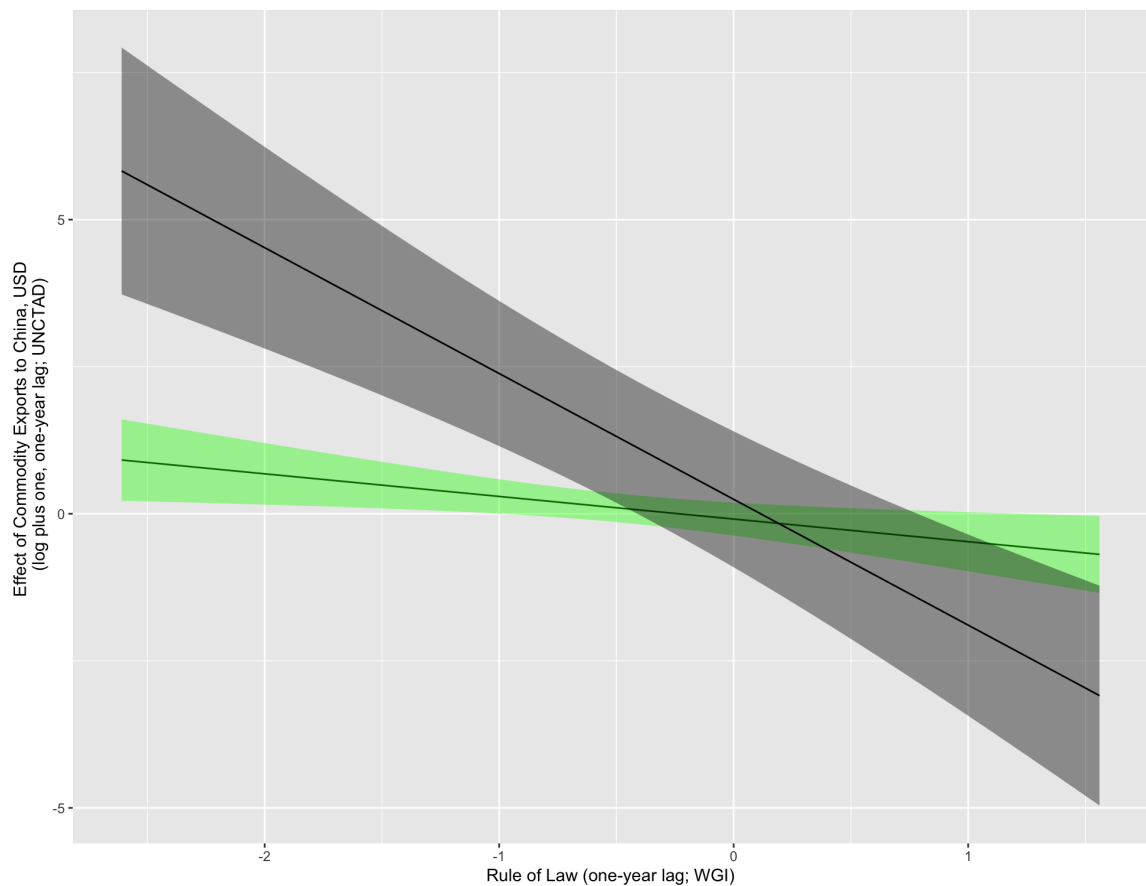
Resource-backed loans may constitute just under one third of all loans by value, but they account for a disproportionate share of the observed interactive effect between governance quality and commodity exports. From looking at these results, it is clear what the Chinese specialist cited in Chapter 3 meant when he called resource-backed loans a “special type of business.” Tied cash loans can provide a degree of protection against corruption risk in resource-producing countries, but resource collateralization adds even more security in the most difficult markets.

These countries populate the top-left corner of Figure 6.2. There are exceptions. A small export-backed loan to Uruguay is a clear outlier. Toward the middle of the rule of law distribution, Brazil and Ghana are also atypical cases.⁵ Also telling are some of the countries that did not receive resource-backed loans. Chile, Oman, Malaysia, South Africa are all important suppliers of commodities to China, but none received resource-backed loans, and Oman did not receive any loans at all. These countries enjoy better market reputations and access to international capital and have no need to accept deals which mortgage their mineral wealth. China, for its part, does not need the extra insurance against corruption there.⁶ Resource-backed loans are tailor-made for the higher-risk portions of global commodity

⁵China’s oil-backed loan to Brazil came before the Petrobras corruption scandal came to light.

⁶Malaysia’s and South Africa’s reputations have taken a hit since 2014, the last year in this dataset, but even today are in better positions than, say, the DRC or Venezuela.

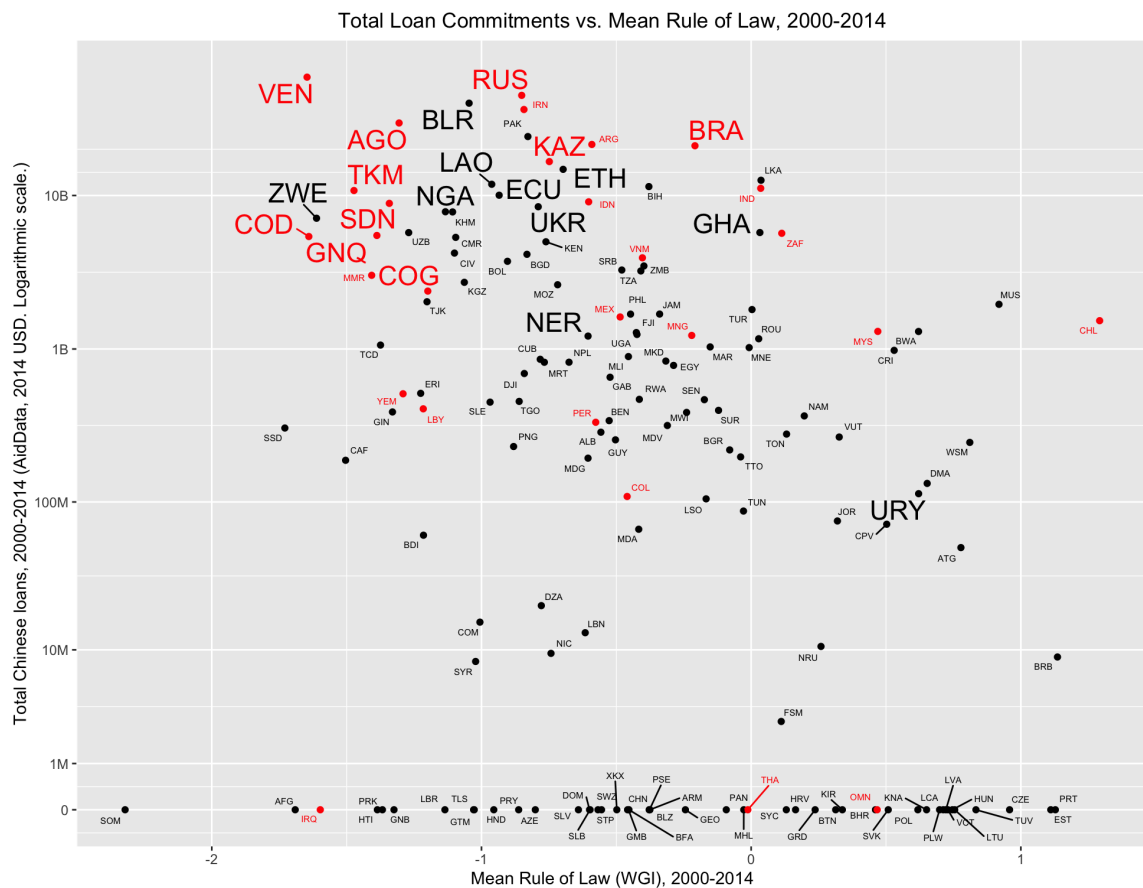
Figure 6.1: Effect of $\text{Ln}(\text{Commodity Exports to China} + 1)$ on $\text{Ln}(\text{Chinese Loans} + 1)$, Varying Rule of Law



Cash in Green; Resources in Black

Based on models of loans per AidData (2000-2014) in Table 6.2, Columns 2 and 3. Assuming non-recognition of Taiwan. All other variables set to mean. Shaded areas are 95% confidence intervals.

Figure 6.2: Total Loan Commitments vs. Mean Rule of Law, 2000-2014



markets.

6.1.3 Summary

Quantitative evidence strongly backs the original theoretical intuition for resource-backed loans: they manage local governance risk by channeling cash funding via Chinese contractors and separating repayment from local government finances. At the same time, they also allow Chinese commodity firms to expand their footprints in the highest-risk markets, where the extra risk insurance is most necessary and local governments are likely to have few other options. This can raise firms' technical capacity and expand global commodity supply.

6.2 China's Resource Security in Andean South America

Both Ecuador and Peru present significant draws to Chinese capital, but via very different mechanisms. Next-door neighbors along South America's Pacific coastline, both are home to important commodities—large amounts of oil with small amounts of mineral ores in Ecuador, and vice versa in Peru. In 2017, Peru supplied 21.07 percent of the world's international copper trade and 30.02 percent of China's imports, making it the leading supplier of China's enormous electronics industry. Ecuador, on the other hand, exported an underwhelming \$496 million in crude oil to China in 2017, a sum constituting only 6.72 percent of its crude exports and an even less significant 0.32 percent of purchases by China, the world's largest importer.⁷

Based on these statistics alone, one would expect China to be much more deeply involved in

⁷Statistics on “copper ore” (HS 2603) and “petroleum oils, crude” (HS 2709) per United Nations (2018).

the Peruvian copper industry than in Ecuadorian⁸ oil. In fact, this is not totally true. China is now the top country of origin for investors in Peruvian minerals—not just copper, but also two major iron mining projects—but is one of several major players amid continued interest from competitors both domestic and from a range of other countries. China did, however, gain a more dominant status in Ecuador, where a series of populist political and economic decisions kept many others away. At one point, over 90 percent of Ecuadorian crude production was pledged to Chinese firms as part of resource-backed loan deals or related purchase agreements, and this despite the fact that the Chinese firms typically sold the oil to commodities traders who transported it not to China but to nearer markets in the Western Hemisphere (Schneyer and Medina Mora Pérez, 2013b).

The real distinction between Chinese engagement in Ecuador and Peru has been more qualitative than quantitative. In Peru, China has made a series of equity investments in copper and iron mines, with only a limited presence in the infrastructure sector; in Ecuador, oil-backed loans have brought Chinese firms *en masse* into infrastructure construction and oil extraction alike. This distinction is the product of recipient domestic institutional dynamics. In Ecuador, the administration of President Rafael Correa voluntarily defaulted on a portion of the country's sovereign debt and pledged to withdraw from the IMF and World Bank, but needed large sums of money for an electrification push intended to drive a poverty-reducing "revolution." Expenditures on the infrastructure led to both serial deficit financing and an uptick in cronyism in a country which already had a reputation for corruption. Enabled by the risk reduction function of oil-backed loans, China entered where few others would, and the Ecuadorian government had few options but to accept its terms. Ecuador came to mortgage most of its oil deposits, especially as a fall in oil prices strained

⁸The English-language demonym for the people of Ecuador varies between "Ecuadoran," "Ecuadorean," and "Ecuadorian." I use "Ecuadorian" due to its proximity to the Spanish *ecuatoriano*.

its ability to service Chinese loans. Without any additional oil to serve as risk insurance, Sino-Ecuadorian lending began to shrink in scope. Since 2017, the new administration of Lenín Moreno has pragmatically reestablished ties with the Bretton Woods institutions and international capital markets, and Chinese activity has further moderated in the face of more substantive international competition.

Peru had its own period of instability in the 1980s, but has since trended toward liberal, private sector-oriented policies and enjoys strong relationships with multilateral development banks and multinational firms. In a crowded marketplace, Chinese firms had little ability to impose terms and concentrated on recipient-friendly equity investments; in any event, in Peru, they had less need for the risk-management function of tied debt. This has begun to change since 2016, as several Peruvian presidents and party leaders have been implicated in the Odebrecht corruption scandal that has to some degree involved most of Latin America. Many elected politicians are engaging in corruption, but under the constraints of an entrenched liberal bureaucracy which only leaves a few select avenues for graft. Peru's internal dichotomy provides a source of within-case variation. Odebrecht, the Brazilian construction giant, at the center of the scandal, has been ejected from Peru. This left several infrastructure projects unfinished. China here entered the void, using debt to manage the risks inherent to taking on works previously tainted by bribery.

The Ecuador-Peru comparison provides some degree of evidence for all of the hypotheses but is especially suited to testing the interaction between resource security and domestic institutions. Large-n tests revealed that debt and especially resource-backed debt is targeted at countries in which China has commodity security interests but whose domestic institutions are not favorable for foreign firms. Studies of Ecuador and Peru allow us to make relevant comparisons over both space and time. In space, Ecuador better fits the unfortunate profile

of a commodity exporter whose domestic institutions have constrained investment; Peru, with its stronger institutions, less so. This comparison is made more potent by the fact that it compares shades of gray rather than black and white: especially following the Odebrecht scandal, Peru's perceived corruption risk is appreciably high in its own right. Even this limited differential in governance risk has led to a pronounced difference in Chinese strategy. The Odebrecht scandal is also part of a pattern of useful variation over time. Peru began to clean up a chaotic domestic environment in the 1990s, enjoyed a subsequent period of stability, and is currently in a period of uncertainty. Ecuador experienced even more drastic fluctuations: first with the rise of Correa, and currently with Moreno's efforts to investigate and address Correa-era graft. China responded to these variations in time, toughening its approach in times of danger and taking a more recipient-friendly line otherwise.

I begin with the Ecuadorian case.

6.2.1 Ecuador

China's involvement in Ecuador has ebbed and flowed with the country's domestic politics. I accordingly divide the Ecuadorian case study into four temporal segments. First is the era before Rafael Correa's 2007 inauguration. China was only peripherally involved in Ecuador at this point, but events before Correa's rise to power played an important role in setting the stage for China's entry. Second is the period between Correa's inauguration and the mid-2014 oil price crash. Falling oil prices severely strained the national budget and saw the beginning of a slowdown in Ecuadorian borrowing, and this before the fact that there was little oil left to mortgage to China. Third is Correa's remaining time in office, until the beginning of the fourth period with the inauguration of current President Lenín Moreno in 2017.

6.2.1.1 Ecuador Before Moreno

Ecuador has long been characterized by a high degree of socioeconomic inequality which has often led to political polarization and drastic policy swings. The country has suffered from two types of instability: one between left and right policy positions between successive presidential administrations, and another related to global commodity price cycles. This long history does not need to be spelled out in its entirety in this work. I will instead begin with the period of instability that created the political status quo extant as China began to enter the region in the mid-2000s. Namely, Ecuador's 1998-2000 financial crisis and *coup d'état* led to a series of institutional changes aimed at protecting international investors and preventing a recurrence of the crisis. These domestic rules reflected the risk management preferences of predominantly Western-based private creditors and the IMF. As such, they maintained a degree of stability in global market interest in Ecuador, and their eventual decline opened the door to China's entry.

Coming on the heels of similar problems in Mexico and Southeast Asia, Ecuador's financial crisis of 1998-2000 put serious pressure on its currency, the sucre. On January 9, 2000, President Jamil Mahuad announced that Ecuador would abandon the greatly devalued sucre and begin using the U.S. dollar (Rohter, 2000). Only twelve days later, on January 21, he was ousted in a coup and after a brief period of uncertainty replaced with his Vice President, Gustavo Noboa. Noboa then reached a series of understandings with creditors and the IMF that set Ecuador's status quo for some time. In April 2000, the IMF agreed to a \$304 million bailout line of credit, at the expense of privatization of several state utilities and measures to control deficit spending (International Monetary Fund, 2000a,b).

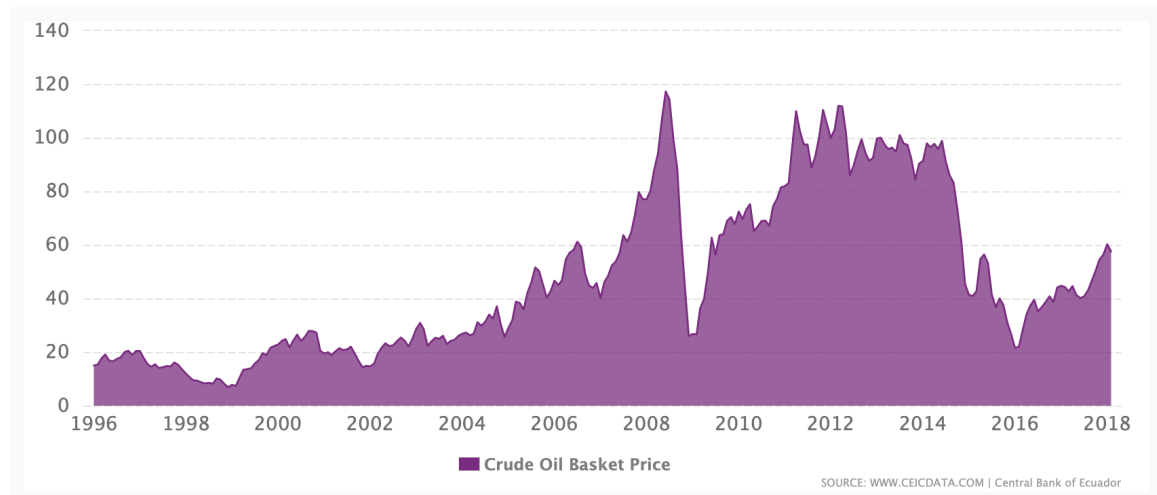
Noboa's government further negotiated with creditors to restructure future bond repayments. Ecuador agreed to swap out dollar-denominated Brady Bonds—themselves a prod-

uct of previous debt restructuring negotiations with the U.S. government—and Eurobonds for a new series of Global Bonds to be traded on both sides of the Atlantic (Conaghan, 2012, p. 669). In 2002, they added a significant domestic measure to ensure that the crisis did not recur. The “Fiscal Transparency Law” contained a series of quantitative fiscal policy requirements, most notably a 3.5 percent cap on annual expenditure growth (Mejía Acosta and Albornoz, 2020, p. 241). This was in keeping with the IMF’s policy conditions as well as concern in the domestic and international business communities about a return to unsustainable indebtedness. Ecuador would also proceed with the construction of a new Heavy Crude Pipeline (*Oleoducto Crudo Pesado*, or “OCP”) and per the new law would use the additional revenues to contribute to a new stabilization fund. This stabilization fund was known as “Feirep,” a Spanish-language acronym Feirep for “Fund for Stabilization, Social and Productive Investment, and Reduction of Public Debt”⁹ This lengthy name indicates its three distinct purposes. The fund took a portion of oil revenues and devoted 70 percent of its expenditures to servicing and buying back public debt, 20 percent to a natural disaster emergency fund—Ecuador is vulnerable to earthquakes, floods, landslides, and El Niño events—and the remaining 10 percent to social spending, especially to the health and education sectors. This system reduced the national debt and provided a modest countercyclical cushion against oil price cycles. It was also popular among international financiers for these reasons and, more directly, because it bolstered the IMF’s efforts to limit a return to serial major deficit spending and thus lowered the risk of default (Gallardo, 2012; López-Cálix et al., 2005, pp. 26–27).

These changes were not, however, universally popular in Ecuador. Former President León Febres-Cordero accused Noboa of misusing \$9 billion of the proceeds of the debt swap to

⁹Spanish: *Fondo de Estabilización, Inversión Social y Productiva y Reducción del Endeudamiento Público*.

Figure 6.3: Average Monthly Price of Ecuadorian Crude Oil Exports (USD), January 1996 – February 2018



Based on basket of different types of crude exported by Ecuador.

Source: CEIC (2018), using data from the Central Bank of Ecuador.

bail out two banks to which he was connected (News, 2003; Conaghan, 2012, pp. 669–70). More generally speaking, there was a sense (especially but not exclusively on the left of the political spectrum) that Noboa had caved to creditors’ demands and given up too much at the negotiating table. Feirep also drew criticism for its designation of 70 percent of pipeline revenues to debt buybacks, despite high levels of poverty made worse by the crisis.¹⁰

This arrangement remained in place as Ecuador climbed out of its recession in the early and mid-2000s. As shown in Figure 6.3, oil prices were on the rebound in what was to become an extended expansion.

The oil market was on the precipice of a boom, partially due to growth in Chinese demand. Both China and Ecuador saw this boom coming when they began negotiating for a greater Chinese role in the Ecuadorian oil industry. In August 2003, Ecuadorian President Lucio Gutiérrez visited Beijing. That year saw several oil deals worth at least \$170 million

¹⁰For example, see (Suárez Buitrón, 2003, pp. 18–23).

in equity investments, but typically as a minority partner alongside larger players (Guo, 2018, p. 21). Changqing Petroleum Exploration Bureau, a subsidiary of China National Petroleum Corporation (CNPC; one of the “Big Three” state-owned oil firms), agreed to invest \$70M in new drilling in Block 57 (Bnamericas, 2003). CNPC also took a stake in the Amazon region’s Block 11; the size of the stake is unclear, but at the time, Block 11 was only producing 1,000 barrels per day, many of which were produced by Romania’s Rompetrol (Rigzone, 2003; Palacios, 2008, p. 178). Sinochem paid \$100 million for ConocoPhillips’ 14 percent stake in Block 16. In an industry worth billions per year in exports, these small investments did not make China more than a minor player.

China’s larger entry into the Ecuadorian market had roots in events that had little to do with it. An Ecuadorian macroeconomic policy change and a dispute with an American firm both paved the way for a Chinese entry. First, in April 2005, Ecuador canceled Feirep, the post-crisis oil-based stabilization fund, and replaced it with a new fund known as Cereps.¹¹ (Reuters, 2005). Whereas Feirep had set aside 70 percent of its revenues for debt repayment and buyback, Cereps devoted only 20 percent to economic stabilization, leaving the remaining 80 percent to go to discretionary budget items (Schenone, 2005, p. 81). This opened the door to deficit spending during a period of high oil prices—sustainable as long as prices stayed high, but highly risky thereafter (Gallardo, 2012). Also gone was the parallel legal requirement of a 3.5 percent per annum cap on spending increases (Mejía Acosta and Albornoz, 2020, p. 241). On the day that the official announcement of Feirep’s cancellation was made, the market price of Ecuadorian government bonds due in 2012 had already fallen by 2.2 percent of face value on anticipation of this policy change (among others) (Reuters, 2005). While it is unclear how many in Beijing were paying attention

¹¹ An acronym for *Cuenta Especial de Reactivación e Inversión*, or “Special Account for Productive and Social Reactivation.”

at this point, the removal of an institutional safeguard against fiscal mismanagement and ensuing jitters in the bond market were the beginning of an opening for a new market entrant. The personnel involved were also a sign of things to come. Minister of Economy and Finance Rafael Correa, not yet a household name in Ecuador, told reporters that “We are the only country in the world where petroleum revenues are promised ahead of time to buy debt. What effect does this have? It triples the price of our debt and makes millionaires out of a few creditors.”¹² (Reuters, 2005)

A second shock in the pre-Correa era came not from the management of oil revenues but from the oil industry itself. The American firm Occidental Petroleum (“Oxy”) was engaged in a dispute with the Ecuadorian government regarding its 2000 sale of a 40 percent stake in its operations in Ecuador’s Block 15 to Canada’s EnCana. The Ecuadorian government said that it had not approved the deal and that Occidental was thus in violation of its contract to take sole responsibility for production in the block; Oxy claimed that it had received government approval (Ebner, 2004; Reuters, 2007a). EnCana, realizing what it had stumbled into, in September 2005 sold its Ecuadorian operations to Andes Petroleum, a consortium of CNPC (55 percent) and Sinopec (45 percent). The deal was valued at 1.42 billion, a striking vote of confidence given the circumstances. Chinese firms were aware of the risks involved: *China Daily* quoted an oil company official as saying that “The joint venture by the Chinese oil companies in buying EnCana’s Ecuador assets means considerably fewer risks, compared with CNOOC’s individual deal for Unocal” (Wang Ying, 2005). While the executive’s immediate point was that CNPC and Sinopec meant to divide the deal’s risk by co-investing, the subtext is striking. In that year, the United States’ Congress blocked a bid

¹²Translation by author. Original Spanish: “Nosotros somos el único país del mundo que los ingresos petroleros los comprometió anticipadamente para comprar deuda ¿qué efecto tiene eso? Se nos triplica el precio de la deuda y estamos haciendo millonarios a unos cuantos acreedores.”

by the China National Offshore Oil Company (CNOOC) to buy California's Unocal. This served as a wake-up call to new Chinese investors that political risk needed to be heeded. The anonymous executive's reference to the failed Unocal deal that such a fate could just as easily befall CNPC in Ecuador. Even in the more liberal Chinese press environment of the 2000s, this admission of downside risk and reference to a sensitive diplomatic issue with the United States was atypical for Chinese state media outlets and indicated strongly held concerns.

The executive was right to be concerned: Ecuador allowed the Chinese joint venture to stay, but in 2006 nationalized Occidental's assets at Block 16, leading to a lengthy legal battle (F. Marshall, 2011). The nationalization had a much larger effect than just granting a foothold to Chinese state-owned firms with a greater ability to use public funds from the home country to tolerate risk abroad. Occidental had been Ecuador's largest foreign producer, and its expulsion sent a message to others that no one was really immune from political interference (Valencia and Ulmer, 2016). In September 2006, Rafael Correa, now out of government and running for President, stated on the campaign trail that accepting Occidental's request for international arbitration would be "an act of betrayal of the country" (El Universo, 2006).¹³

Despite an atmosphere of rising risk, some Chinese firms began making plans for major projects in Ecuador. Many clustered around the coastal city of Manta. Most of Ecuador's maritime trade passes through the port of the largest city of Guayaquil, in the south. Chinese actors and local authorities both hoped that this left room to grow in Manta, along the central coastline.

¹³Translation by author. Original Spanish: "un acto de traición a la Patria." Villavicencio (2013) sees the Occidental dispute as a launching point for Correa's career, although Correa talked about it relatively little on the campaign trail.

Plans for the area included a seaport, airport, oil refinery, and perhaps a transit corridor to inland cities. The seaport came first. In 2006, Hong Kong-based private firm Hutchison Port Holdings led a consortium to invest \$423 million into expanding the existing small port, including dredging the shipping channel to allow for larger ships and enlarging the fishing pier (Ellis, 2009, p. 132). China was interested in diversifying its imports of fishmeal, which is frequently used as animal feed in a country which has outsourced animal feed to foreign producers in order to focus its limited domestic farmland on grain crops more central to food security. As of 2005, China bought 85.9 percent of its fishmeal imports from Peru and Chile but recorded none at all from Ecuador, leaving obvious room for growth (United Nations, 2018). Of course, expanding the port would also mean more room for Chinese manufactured exports to Ecuador, and Ecuador (and especially the surrounding province of Manabí) hoped to expand its exports as well. Ellis (2009) writes that the port also factored into plans for the oil industry:

Hutchison's development of the port should be understood in the context of the increasing Chinese commerce with Ecuador—a context that includes the construction of a new refinery in Manabí and the possibility that petroleum output from newly opened ITT oil fields would be sent to Manta for refining and subsequent export. (133)

At the time, Ecuador was considering exploiting the Ishpingo-Tambococha-Tiputini (ITT) oilfields which were protected from drilling as part of the Yasuní National Park. The oilfields lay underneath an Amazonian biodiversity hotspot, meaning that their fate was highly controversial, but China was hoping that they could be opened to drilling. Ecuador's main oil refinery at Esmeraldas, along the northern coast, was inefficient and unable to keep up with domestic demand for refined fuel, much less an influx of new oil from Yasuní, and a new one would be necessary to reduce Ecuadorian dependence on foreign refining.

A refinery and port would also require some degree of transportation to interior cities. Manta was home to a small airport, which itself housed the United States Air Force's only operating base in South America, used primarily for anti-narcotics operations. The American lease was set to expire in 2009, and if the lease were not renewed, there would be an opportunity to find a new use for the infrastructure.

Overland transit, however, would be more fundamentally necessary for the port's success. In the case of the refinery, this would likely mean either an oil pipeline or highway to oil fields in the Amazon; for the port, more likely connectivity to the cities of the Andean highlands, especially the capital of Quito.

The project here took on a more strategic flavor. Inland connectivity could conceivably connect all the way to the Brazilian border and from there to the Atlantic. This would mostly benefit Brazil: Ellis (2009, p. 133) estimated that Brazil accounted for 36 percent of Latin American exports to China, but the imposing voyage from the Southern Atlantic to the Western Pacific took over forty days. Ecuadorians in adjacent inland areas would also hope to benefit from better access to regional and global markets. However, the elephant in the room was neither in Brazil nor in Ecuador but in Panama. China, fairly or not, perceived the Panama Canal to be American-controlled. An alternate route connecting the Atlantic and Pacific would provide China with a way around this issue, (possibly) maintaining access to Brazilian soybeans, iron, and export markets in the event of a crisis (Amazon Watch, 2014, p. 7). This is essentially a South American iteration of the Belt and Road's aim to circumvent maritime chokepoints by moving across the Eurasian mainland, albeit years before the Belt and Road was announced. Especially given the U.S. Air Force's uncertain future at Manta, there was a possibility for a geostrategic opening for China.

That being said, this opening was far from certain. When Ecuador went to the polls to

elect a new president in 2006, the only deal in Manta for which ink had dried was for the seaport; the rest remained hypothetical. In the oil industry as well, China had made inroads following the departures of Occidental and EnCana but remained one of several players; notably, Spain's Repsol was heavily invested. More to the point, China's entry into Ecuador was limited to equity investments. The oil block investments were part of Ecuador's system of "participation contracts"; essentially, purchases of the right to exploit and sell oil, while paying some taxes and royalties to the government. The Hutchison port deal was done on a public-private partnership (PPP) basis, meaning by putting forward the money to build the new project, Hutchison "bought" the right to operate and profit from it for thirty years (Kueffner, 2009). While not exactly the same as an equity investment in perpetuity, this is a much longer-term commitment than a debt contract, and Hutchison held much more financial risk than the Ecuadorian government. The expulsion of Oxy sent enough jitters through the international business community that China gained a foothold, but the damage to Ecuador's institutional environment was not yet such that China was in a position to dictate terms. Notably, there were no major debt packages to Ecuador.

What happened with China's involvement in Ecuador was contingent on the general future trajectory of Ecuadorian governance patterns. These changed drastically in 2007.

6.2.1.2 The Rise of Correa

The seven years between Rafael Correa's 2007 inauguration and the 2014 fall in global oil prices saw enormous expansion in Chinese commercial activity in Ecuador. Because of the sheer volume of activity, I divide this section into three parts. First, I discuss general changes in policy and governance during the first two years of Correa's first term. Many of these drastically limited foreign interest in Ecuador's economy, paving the way for China's

entry. Second, I detail China's primary mode of entry: a series of oil-backed loans. Third, I continue to how Ecuador used the money. Namely, much of it went to hydroelectric dams, alongside a few miscellaneous other infrastructure projects.

2007-2008: The Transition Period Rafael Correa won the November 2006 presidential vote on a leftist populist platform tapping into popular discontent with domestic and international economic elites. When he took office in January 2007, he wasted little time in pushing an ambitious agenda. Correa's changes affected a large swath of the Ecuadorian political and economic landscape, but I will focus on several changes which affected its international financial position. These are: 1) a freezing of ties with the IMF and World Bank; 2) changes to the legal structure of its dealings with foreign oil companies; 3) the elimination of the oil stabilization fund and limits on deficit spending; 4) a new constitution; and 5) a strategic default on part of its sovereign debt.

The above changes were all being negotiated simultaneously, but the rupturing of ties with the Bretton Woods institutions happened particularly quickly. A pledge not to sign any further letters of intent (an early step in the process of borrowing from the IMF) was announced in the days leading up to Correa's inauguration (El Universo, 2007). The Ecuadorian government went a step further with the World Bank, actually expelling the Bank's Country Manager in April 2007 (BBC News, 2007a). Between January 2008 and June 2013, the Ecuador borrowed only \$2.2 million from the World Bank, and none at all from the IMF.¹⁴ This left a gap in Ecuador's financing options that bore filling. In the case of the IMF, this shortfall was multiplied by private lenders' realization that they could not count on an IMF backstop in the case of another crisis. Correa was willing to pay this price both

¹⁴The World Bank project was actually funded by Japan, but housed within the Bank. International Monetary Fund (2020b) and World Bank (2020).

for the immediate political gains of catering to his base and, more fundamentally, to gain a free hand to reshape Ecuador's political economy in ways that would cause even deeper ruptures with international investors.

One such change was to the oil sector. As in most countries of the world, Ecuador's subsurface minerals are property of the state. Under the old system of "participation contracts," investors bought the rights to extract and sell these minerals within a defined geographic area but then paid income taxes to the state. These contracts amounted to equity investments in the right to extract. In 2008, Correa commuted these into "service provider contracts." Now, foreign oil firms no longer owned the rights to extract; instead, they were simply contractors hired to drill by the oilfields' ultimate owner, the Ecuadorian state. Oilfield contractors also had to pay more in taxes and fees to the government (González-Vicente, 2013, p. 56). Oil companies were not being directly forced out *a la* the nationalizations of a prior era, but they did lose legal title, and their profits were arbitrarily reduced contrary to a prior agreement.

Changes to the oil production scheme were met by arguably larger changes in how oil money was spent. Readers may recall that in 2005, then-Minister of Economy and Finance Correa had overseen the replacement of Feirep, an oil-based stabilization fund which slated 70 percent of its expenditures to external debt, with Cereps, a successor which instead devoted 80 percent of its resources to discretionary spending. Feirep had been created by a 2002 "Fiscal Transparency Law" limiting deficit spending. In his inauguration speech, Correa made it clear that these arrangements' days might be numbered:

Is it not corruption that there exist absurd laws like the Fiscal Transparency Law, which limits any expenditure except debt servicing?

Was it not corruption, the barbarity called the Fund for Stabilization, Social

and Productive Investment, and Reduction of Public Debt—the sadly famous FEIREP—that with the resources brought by new petroleum extraction guaranteed the payment of debt and its repurchase ahead of schedule? In this way, they have robbed us of our money, our natural resources, our sovereignty... although the majority of these deeds, for having been sanctioned by corrupt laws, will remain unpunished, on the 26th of November of 2006 the Ecuadorian people condemned their authors and executors to the dustbin of history.¹⁵ (Correa, 2007)

In May 2008, Correa scrapped Cereps entirely.¹⁶ The institutional barriers to a return to large-scale deficit financing were coming down.

The end of the stabilization funds was an important legal change, but not the most important one of Correa's first two years in office. In September 2008, a new Constitution was approved. The document's 444 articles do not bear systematic explanation here, but I will isolate several of interest from an international business perspective.¹⁷ One had to do with the roots of the previous crisis: the new Constitution established that monetary policy was formulated by the executive branch and implemented through the Central Bank (Government of Ecuador, 2008, Article 302). This raised the possibility that the president could order an inflationary monetary policy to generate a short-term boom, potentially leading to a longer-term bust, as had happened in the late 1990s. Another article of the 2008 Constitu-

¹⁵Translation by author from original Spanish. Original:

¿Acaso no es corrupción la existencia de leyes absurdas como la Ley de Transparencia Fiscal, que limita cualquier gasto, menos el servicio de la deuda?

¿Acaso no fue corrupción esa barbaridad llamada Fondo de Estabilización, Inversión y Reducción del Endeudamiento Público –el tristemente célebre FEIREP- que con los recursos de la nueva extracción petrolera garantizaba el pago de deuda y recompraba ésta en forma anticipada y pre anunciada? De esta forma, nos han robado nuestro dinero, nuestros recursos naturales, nuestra soberanía... Pese a que la mayoría de estos hechos, por haber estado amparados en leyes corruptas, quedarán en la impunidad, el 26 de Noviembre del 2006 el pueblo ecuatoriano ya condenó a sus autores y actores al basurero de la historia.

¹⁶Technically, Cereps funds were transferred to the Savings and Contingency Fund (*Fondo de Ahorro y Contingencia*), which carried few restrictions. See legal guidance at (Correa, 2008).

¹⁷See text of constitution at Government of Ecuador (2008).

tion held that Ecuador could no longer participate in international arbitration outside Latin America (Government of Ecuador, 2008, Article 422). On one hand, this preserved the possibility of transnational arrangements with other regional states, especially Venezuela. On the other, Occidental could not expect much from its ongoing lawsuit, and any would-be investors would have to take notice as well. On a related note, another article allows for state expropriation of private assets “for reasons of public utility or social and national interest.”¹⁸ Future investors could not reasonably expect secure tenure.

Garzón and D. Castro (2018, p. 32) note that in the same year, Ecuador altered its procurement law to allow non-competitive bids if an outside party were to put up at least 75 percent of a project’s financing. While not actually part of the Constitution, the new procurement law reinforced some of its changes. As the World Bank and many private actors were either exiting or developing jitters, there would be a need to find replacements. Several countries would offer tied, non-competitive financing packages—Russia and Venezuela were part of the picture—but China dwarfed the competition in raw financial terms.

Before moving forward to China’s large-scale entry, however, there is one last major change to cover: Ecuador’s December 2008 default on part of its sovereign debt. The previous section discussed how following the 1998-2000 financial crisis, President Gustavo Noboa had entered a debt swap trading bonds in default for a new set of Global Bonds offered in the United States and Europe. His political rivals accused of him using the funds toward his own financial interests, or simply of giving up too much to international creditors in order to maintain access to markets. Correa opened an investigation into Ecuador’s debt, leading to a September 2008 report which found evidence of “illegality” and “irregularities.” The report alleged that Ecuador received too little for its bonds in default; was asked to put

¹⁸ Author’s translation from Spanish: *por razones de utilidad pública o interés social y nacional*. Government of Ecuador (2008, Article 323).

up an excessive amount of collateral for the deal; that the investment bank Salomon Smith Barney had acted without a legal contract and had improperly used \$724 million in Ecuadorian funds put up as collateral; and that the bonds were not legally callable before most had reached their maturity date and thus could not be forceably traded for new ones (Comisión de Auditoría Integral del Crédito Público, 2008, pp. 39–41, 180–82). The crux of the argument was not that the previous government had not agreed to the creditors' terms but that the whole arrangement—hiring a foreign investment bank and taking a loss and pledging collateral as part of a default settlement—was part of a military government's plan to raid the coffers of a country in turmoil and was thus inherently illegitimate. From the perspective of the investors, this was an unwarranted attack on a plan that had already been negotiated and put into place eight years prior; from Correa's perspective, it was righting the wrongs of his country's past leadership.¹⁹ In December 2008, Ecuador formally entered into default on \$3.2 billion of debt related to the 2000 swap, despite having an abundance of money in the state coffers to make payments.

Whatever the merits of Correa's case, the message received by investors was that no legal contract was safe in Ecuador (Ray and Chimienti, 2015, pp. 12–13). All of these changes generally raised investor perceptions of political risk. As the Bretton Woods institutions and many private firms withdrew, Ecuador was now going to turn to a country whose methods of doing business were better suited for environments in which expropriation or misappropriation were major concerns and the rule of law was anything but stable.

China Enters: Presales and Resource-Backed Loans Correa had painted himself into a corner: he needed money to pursue his electoral mandate for a “citizen's revolution” (*revolución ciudadana*) dismantling Ecuador's structures of systemic poverty and inequality,

¹⁹A financial sector perspective on this can be found in Zeledon (2009).

but this came with a steep price tag, and many sources of finance had disappeared (D. Castro Salgado, 2019, p. 313). In June 2009, Ecuador took tepid steps toward reestablishing relations with private creditors by buying back most of the bonds in default. However, the purchase was made at only 35 percent of the bonds' face value after markets had largely given up on them (Economist, 2009). Leaked video of a former Correa official also suggests that the administration may have intended to use default to push bond prices downward to facilitate an easier buyback, and bondholders could hardly trust them not to do the same again (Economist, 2007).

Notable goals of the Correa administration included addressing electricity shortages by harnessing the hydroelectric potential of rivers flowing from the Andes; boosting domestic oil refining capacity; and generally spending more in social sectors. Limited amounts of money also came from Brazil,²⁰ Venezuela, and Russia, but only China had both the ability to deal with Ecuador's elevated political risk and deep enough pockets to fund Correa's initiatives.

China's financing to Ecuador was not only to change quantitatively, but also qualitatively. China's limited outreach to Ecuador pre-Correa had mostly been through equity investments. Under the new political environment, these were increasingly untenable. PetroChina and Sinopec's investments were commuted into service contracts along with those of other foreign oil companies. Hutchison's thirty-year investment in the Manta port also fell through. Correa, frustrated with lower levels of shipping traffic than anticipated, attempted to renegotiate the contract to remove tourism and industrial zones that Hutchison hoped to use as cash cows. Hutchison delayed planned investments in response to Ecuadorian demands, and in January 2009, Correa told the press that he was issuing Hutchison a "yellow

²⁰Relations with Brazil were complicated by Ecuador's default on a loan to BNDES, Brazil's national development bank, on similar grounds to those used to justify the sovereign bond default.

card,” referring to football officials’ warnings to players short of expelling them. In February 2009, Hutchison left (Kueffner, 2009; Leung and Chiu, 2009; El Universo, 2009b; Ellis, 2014, pp. 173–74). In July 2009, Correa opted not to renew the American military’s lease at the Manta airbase, and there was some discussion of using to boost trans-Pacific travel, but this also never came to pass (Ellis, 2014, p. 132). Discussion of an inland corridor from Manta also fizzled.

In the meantime, however, Manta did attract one major new equity investment commitment. In July 2008, Ecuador and Venezuela signed a deal to build the mammoth Refinery of the Pacific in the area, the idea for which had been circulating for some time. Ecuador was to own 51 percent of the project, with the Venezuelan national oil firm *Petróleos de Venezuela* (PDVSA) owning the remainder. The expected price tag was US \$6 billion, or 9.7 percent of Ecuador’s GDP (Reuters, 2008b).²¹ The deal’s geostrategic implications were not hidden. Rafael Correa made the announcement standing alongside Venezuelan President Hugo Chávez and Nicaraguan President Daniel Ortega at Manta Air Base, where American airmen and women were at that point still stationed. Villavicencio (2013, pp. 176–77) points out that the Pacific Coast refinery could allow for processed fuel export to Asia without the use of the Panama Canal. This confirms the theory’s predictions for the impact of geostrategic importance on development finance for both Venezuela and, in a different way, China. China may care about energy transit through the Panama Canal but at the end of the day has much more direct interest in Eurasia. The opposite is true for Venezuela, which was willing to risk large sums via equity. Venezuela later backed out due to lack of funding, and China agreed to buy part of PDVSA’s stake, but even this fell through (Comercio, 2014). The project was ultimately scrapped.

²¹The World Bank (2018c) estimated 2008 Ecuadorian GDP at \$61.76 billion.

China's move away from equity was the beginning of its oil-backed loans to Ecuador. These came in two types. First was the "pre-sale,"²² or a simple purchase order trading cash up front for oil deliveries later according to a predetermined schedule. An interest rate connects the value of the oil deliveries to the value of the upfront payment; in effect, the buyer receives a discount for paying ahead of time. Pre-sale payments are also untied to any specific use. Pre-sales are technically not loans but advanced payment for exports, meaning that they are not included in any of the databases of loans used for quantitative analysis earlier in this chapter, but I include them here due to their relevance for true "loans" which followed. The second type is the more familiar resource-backed loan in which there is an actual loan contract labeled as such with funds destined (at least partially) for Chinese-built construction projects. In the Ecuadorian case (as in many others), smaller oil-backed loan agreements were signed alongside larger oil purchase orders, meaning that only a minority of purchase orders would be slated for loan repayment (K. P. Gallagher, Irwin, and Koleski, 2012, pp. 5–6; Garzón and D. Castro, 2018, p. 26).

Table 6.4 lists China's oil-backed financing packages to Ecuador.

²²Spanish: *preventa* or *venta anticipada*.

Table 6.4: Chinese Oil-Backed Financing to Ecuador

Date	Name	Lender	Amount (mil. USD)	Interest	Payback (years)	Grace (years)	Price Premium: China (USD/bbl)	Price Premium: Market (USD/bbl)
July 2009	Pre-Sale I	CDB	1000	7.25%	2	0	\$1.25 ¹	\$2.09
June 2010	Credit Line I	CDB	1200	6.00%	4	0.5	\$0.51	N/A
June 2011	Credit Line II, Part A	CDB	1400	7.16%	8	2	\$0.75	\$2.25
June 2011	Credit Line II, Part B	CDB	600	6.25%	8	2	\$0.75	\$2.25
June 2011	Pre-Sale II	CDB	1000	7.08%	2	0	\$0.52	\$2.00
Dec. 2012	Credit Line III, Part A	CDB	1400	7.19%	8	2.3	N/A	N/A
Dec. 2012	Credit Line III, Part B	CDB	300	7.19%	8	2.3	N/A	N/A
Dec. 2012	Credit Line III, Part C	CDB	300	6.87%	8	2.3	N/A	N/A
Jan. 2016	ICBC Loan, Part A	ICBC	820	3-month LIBOR + 6.2%	5	0	N/A	N/A
Jan. 2016	ICBC Loan, Part B	ICBC	150	3-month LIBOR + 6.2%	5	0	N/A	N/A
April 2016	Credit Line IV, Part A	CDB	1500	7.25%	8	2	N/A	N/A
April 2016	Credit Line IV, Part B	CDB	500	6.87%	8	2	N/A	N/A

¹ Actually \$1.25 for Oriente blend and \$1.30 for Napo blend, but the more conservative figure is used for the table.

Compiled from Bräutigam and K. P. Gallagher (2014), D. Castro Salgado (2019), Dreher, Fuchs, Parks, et al. (2018), Garzón and D. Castro (2018), and Villavicencio (2013).

The first pre-sale came in July 2009, several months after the Manta port deal had fallen through. China agreed to forward \$1 billion to Ecuador, repayable over two years at 7.25 percent interest. These terms could be viewed as very favorable or very unfavorable, depending on one's perspective. On one hand, the annual interest rate was to be the second-highest of all of the oil deals, and its two-year repayment period without an initial grace would be tied with the other pre-sale as the toughest. On the other, unlike tied loans, the funds were not directed to any particular project, a fact much appreciated by a government in the process of increasing social sector spending. The funds went directly from PetroChina to Petroecuador, the state-owned oil firm; at the beginning of 2011, as Ecuador was repaying the loan, the Ecuadorian press reported that Petroecuador planned to invest \$549.7 million in exploration and production but transfer \$2.4 billion to the state budget (El Universo, [2011e](#)). It is difficult to know what these numbers would have been absent China's cash injection, but the oil sector and state budget both benefited to some extent. The pricing of the oil within the deal is of ambiguous benefit to Ecuador. The deal (along with the rest of China's deals) gave Ecuador less for its oil than other purchases around the same time. Villavicencio ([2013](#)) sees this as a sign of predatory strong-arming, but it could also be construed as PetroChina receiving a discount for ordering larger volumes smaller competitors. I take no position on how to compare prices paid by China with those paid by others, but will instead compare successive Chinese deals.

The next Chinese deal was the first oil-backed loan proper. Its interest rate was lower—at 6.00 percent, the lowest that was to be offered—although the price paid was also lower. K. P. Gallagher, Irwin, and Koleski ([2012](#), p. 9) see oil collateralization as driving down interest rates by managing risk. Indeed, we can see that of the deals in the early (2009-2011) period—that is to say, while Ecuador's financial position was still somewhat stronger—the

oil-backed loans tended to carry lower rates and longer payback periods. This is because they are at least partially expressly directed to Chinese projects, meaning the risk of misappropriation or non-repayment is attenuated.

However, this loan came with a much larger string attached: opening an Amazonian national park for drilling. The Correa administration's Yasuní-ITT Initiative, named after Yasuní National Park and the Ishpingo-Tambococha-Tiputini (ITT) oilfields beneath it, sought to raise \$3.6 billion to compensate Ecuador for *not* drilling in the park. Yasuní was important both in its location at a rainforest biodiversity hotspot and as the location of much of Ecuador's remaining untapped oil. Villavicencio (2013) estimated that as of 2007, Ecuador's existing oilfields had roughly ten years of left at current production levels, meaning the park would be critical to future oil exports. The conservation initiative certainly catered to Correa's base and may have been meant to prove a point about the actual depth of the rich world's commitment to conservation, and it never actually raised even \$1 billion (Vidal, 2012). Documents from the 2009 negotiations leaked to the *Guardian* state that "the Ecuadorian party has said it will do all it can to help PetroChina and Andes Petroleum explore ITT and Block 31."²³ This was while the Yasuní-ITT Initiative was (publicly) alive and actively raising funds. Correa might have ultimately decided to drill in the park anyway, but it was politically costly, especially with respect to indigenous rights groups and environmentalists in his political base. China was taking a tough position to promote its commercial goals in a way that created a cold coincidence of economic interests but probably not many feelings of diplomatic warmth.

In exchange for pledging what China wanted most, Ecuador was able to secure what was otherwise a fairly favorable bargain. The leaked documents from Ecuador's Ministry

²³D. Hill (2014). Original document at Ministerio de Coordinación de la Política Económica (2014).

of Economic Policy Coordination provide an unusual level of detail about negotiators' closed-door experiences. One chart lists China's and Ecuador's interests. China's goals were:

Chinese objectives:

- 1. To secure the provision of crude to PetroChina in the medium term**
2. To specify the nature of CDB's financial operations
3. To secure the participation of Chinese firms and contractors in the execution of projects
4. To strengthen bilateral relations under the spirit of cooperation

Ecuadorian objectives:

- 1. To access a line of credit on favorable conditions for the financing of priority projects**
- 2. To strengthen relations with a strategic ally²⁴**

*Source: Ministerio de Coordinación de la Política Económica (2014, p. 5).
Text coloring and emphasis in original.*

The listing of objectives is highly consistent with the predictions of Chapter 3. Ecuador anticipated that China would drive the hardest bargain on oil, placing it at the top of the list and in boldface and different text coloring. Next were China Development Bank's and the firms' interests; a realistic fourth were diplomatic relations. Ecuador did not even list oil exports among its interests. Drilling in Yasuní was being done for a greater good, but

²⁴Translation by author. Original Spanish:

Objetivo chino

- 1. Asegurarse la provisión de crudo en el mediano plazo para Petrochina**
2. Concretar operación financiera para BDC
3. Asegurar la participación de empresas y contratistas chinos en ejecución de proyectos
4. Fortalecer relaciones bilaterales bajo espíritu de cooperación

Objetivos Ecuador

- 1. Acceder a una línea de crédito en condiciones favorables para financiamiento de proyectos prioritarios**
- 2. Fortalecer las relaciones con un aliado estratégico**

Ecuador did not relish doing it. The point was, to use their own words, “financing of priority projects,” which as will be covered in the next section refer mostly to large power sector and other infrastructure works. Ecuador also more highly rated geostrategic priorities, leaving them in boldface and using fairly strong language—the PRC as a matter of course never uses the word “ally,” for example. Ecuador was aware of its strategic vulnerability as it distanced itself from the United States, but also understood that this was a peripheral concern to China.

This accurate understanding of China's interests led Ecuador to get much of what it wanted. China's original proposal called for an eight-year guarantee provision in the loan; this was bartered down to two years (Ministerio de Coordinación de la Política Económica, 2014, p. 7). China also asked for the loan to be split between \$500 million toward infrastructure and energy projects and another \$500 million tied to Chinese-built projects; Ecuador bargained their way to \$800 million completely untied and “\$200 million to priority projects defined by the Government of Ecuador and that can be executed by Chinese firms **if they win the bidding processes**” (emphasis in original) (Ministerio de Coordinación de la Política Económica, 2014, p. 8).²⁵ The boldface again tells an important story: Ecuador was concerned about China's tying of contracts and wanted to avoid them. It also says quite a bit about China's priorities, as the open-procurement stipulation in this deal was against China Development Bank's normal operating procedures. Writing such a large blank check to Correa's government was highly risky and shows how far China was willing to go for a chance at the ITT oilfields.

In practice, as will be discussed in the following section, very few non-Chinese firms were

²⁵Translation by author from Spanish: “\$200 millones destinados a proyectos prioritarios definido por Gobierno Ecuatoriano y que podrían ser ejecutados por empresas chinas **en proceso de ganar procesos de licitación**.”

to win bids on any of the projects, although it is hard to ascertain how much of this was due to Chinese government pressure, Chinese firms' inherent cost competitiveness, or other countries' firms' apprehensions about the Ecuadorian market. Still, the fact that Ecuador saw it fit to specify open bidding demonstrates that they saw the tying of loans as an imposition. One Ecuadorian press article cited oil sector veteran and journalist Fernando Villavicencio in an article on the credit line:

For the petroleum expert Fernando Villavicencio, these negotiations with China generate not just an economic dependency but also a technological dependency on that country.

He also mentioned that this technology has been questioned. Villavicencio further criticized the fact that there had been no open bids to guarantee quality and price and that the loan contract indicating that \$200 million should go to the state-owned firm Petroecuador had been violated.²⁶ (El Universo, [2011a](#))

Tied loans take away borrower choice of project technology, potentially for decades, and remove incentives to control costs and build high quality works. A report by El Universo ([2011a](#)) also mentions some controversy about the destination of the funds. The final version of the plan had apparently specified that of Ecuador's "priority projects," \$400 million in funds would flow through Petroecuador. Given the fluid financial boundary between Petroecuador and the Ecuadorian state coffers, there is no guarantee that all of this money would go to oil-sector investment to repay China's loans, but at least some of it would. The article continues to specify that Correa diverted \$100 million of this amount to a public

²⁶Translation by author. Original Spanish:

Para el experto petrolero Fernando Villavicencio, estas negociaciones con China generan, además de la dependencia económica, una dependencia tecnológica frente a ese país.

También mencionó que esta tecnología ha sido cuestionada. Villavicencio critica además que no se realicen licitaciones para garantizar la calidad y el precio y que se haya violentado el contrato de crédito que indicaba que los \$ 200 millones debían ir a la empresa pública Petroecuador.

security initiative. This was not China's decision, but it does indicate their priorities. They were willing to entertain Correa's diversion of funds from a sector that could help repay the loan to one that could not at least partially because China National Electronics Import & Export received the \$100 million contract for an emergency call system (El Tiempo, 2011). What's more, the another \$100 million to the oil sector went to fund a PetroChina subsidiary's participation in pipeline development (El Universo, 2011a).

One more bone of contention emerged between China and Ecuador: to whom the oil was sold. As for many oil exporters, Ecuador had long sold much of its oil to trading firms specializing in "midstream" delivery of oil from producing countries to refineries. These firms naturally demand a cut of the value chain. Many of them, and especially large firms such as Glencore and Trafigura, exercise significant influence over global commodity markets. Correa had pledged on the campaign trail to broker deals directly with refineries so as to avoid these extra costs and indeed made arrangements with buyers in Uruguay and Venezuela. However, he ultimately struggled to find enough refiners with the interest or financial muscle to arrange for transportation by themselves. For the first pre-sale agreement (July 2009), PetroChina had agreed to go along with this demand. However, for the first oil-backed loan (June 2010), China scrapped the commitment not to sell to traders, who were taking the oil mostly to neighboring Latin American markets or the United States. Allowing the traders to handle transportation to nearby markets was more efficient from PetroChina's perspective and was also consistent with the Chinese government's desire to use the deal toward energy security (Schneyer and Medina Mora Pérez, 2013a; Villavicencio, 2013, Chapter 2). As Schneyer and Medina Mora Pérez (2013b) put it:

The new oil flows allow China to hedge its exposure to oil prices or disruptions from suppliers closer to home, including top OPEC producers Saudi Arabia, Iran and Iraq. [...]

Less than 2 percent of Ecuador's oil was shipped to China during the second quarter, according to Ecuadorean Central Bank data. Instead, at least 214,000 bpd of it wound up in the United States, where many refineries are configured to process heavy-sour Latin American crude.

Chinese firms serve as middleman in most of the Ecuadorean oil sales, while keeping a strategic option to divert barrels to China if needed. As China's trade grows in the region, U.S. relations have soured with Venezuela and Ecuador, whose leaders are outspoken U.S. critics.

China *could* send more oil to the home country in the event of a price shock, but doing so would cost more in terms of transportation and pose challenges to refining. PetroChina and Sinopec struck an effective balance between their own profit interests and their government and largest shareholder's interest in commodity security. This being a more commercial than diplomatic endeavor, Ecuador's preferences were not heeded.

In June 2011, it was reported that Block 14, which had originally been purchased by PetroChina and Sinopec from EnCana in 2005, had been expanded to include part of Yasuní National Park (Acosta, [2011](#)). The official policy of waiting for international donations in lieu of oil revenues was functionally over. Within ten days, another oil-backed line of credit was agreed to (Amazon Watch, [2014](#), p. 5). Ecuador had stalled on the informal agreement to open the new oilfields in exchange for the previous loan, but the promise of further credit apparently changed this. At \$2 billion, the second loan almost doubled the previous \$1.2 billion deal. In exchange for opening the park, Ecuador received a degree of discretion on how to use the funds, although not as much as previously. The \$2 billion was divided between two tranches. The first, of \$1.4 billion, carried a higher (7.16 percent) interest rate but could be used at the Ecuadorian government's discretion. Notably, it was not collateralized with oil. The remaining \$600 million was oil-backed and designated for use in the oil sector, but carried a lower (6.25 percent) interest rate (D. Castro Salgado, [2019](#)).

A comparison within a single loan deal illustrates the power of resource collateralization: borrowing toward oil production and repaying in oil led Ecuador to be charged a lower risk premium via the interest rate.

The second credit line also illustrates greater concern over governance risk on the part of China Development Bank. The national budget deficit planned for that year reached \$3.7 billion, including major pay raises for public employees (Ecuador Inmediato, 2011). The elimination of institutional barriers to unsustainable deficit spending was beginning to show. Ecuador was also heavily reliant on higher-risk oil production from new deposits, notably in Yasuní. According to one member of the National Assembly, 75 percent of Ecuador's oil already went to Chinese firms (El Universo, 2011c). CDB had uncharacteristically allowed 80 percent of the first credit line to be lent with no real conditions on how it was used, but this time exercised more caution, cutting the discretionary portion of the loan 70 percent and specifying that it be used for infrastructure. This way, CDB could at least ensure that the funds would go toward something that generated income and not social benefits or public sector pay which, regardless of their other merits, would not create enough short-term return to service high-interest loans. Designation for infrastructure could also compensate for increasing risk by channeling money toward Chinese firms in need of overseas contracts. China was also tougher about enforcing its interest in committing more—30 percent, versus 20 previously—of the funds toward oil production, both for its national energy security purposes and to make sure enough oil was being drilled to meet payments to CDB.

By the end of June 2011, China's concerns were to a certain extent balanced out by a second \$1 billion pre-sale agreement, which by its nature did not slate funding toward any particular end. The second pre-sale was generally similar to the first, albeit with a slightly

lower price premium. However, even this relatively no-strings-attached deal demonstrated greater caution than came previously. It was a smaller portion of overall lending: its \$1 billion came next to a more demanding \$2 billion deal, while the first \$1 billion had come almost a year before a smaller (\$1.2 billion) and less demanding oil-backed loan.

By 2012, Ecuador's budget situation had not improved. In the first nine months of that year, Ecuador ran a \$1.2 billion deficit even after accounting for new borrowing; without the proceeds of new borrowing, that number rose to \$3.3 billion (Subsecretaria de Contabilidad Gubernamental, Ministerio de Economía y Finanzas del Ecuador, [2012b](#)). In contrast, the Ecuadorian government had \$2.4 billion in liquid assets on hand (Subsecretaria de Contabilidad Gubernamental, Ministerio de Economía y Finanzas del Ecuador, [2012a](#)). Ecuador approached China for more money, but China held out until December 2012, when the third credit line was approved. As far as the oil sector was concerned, China drove a hard bargain: the associated purchase orders led to Chinese firms' control of 90 percent of crude exports (Schneyer and Medina Mora Pérez, [2013b](#)). This was particularly damaging from Ecuador's perspective because it meant there was little oil left over to sell on the "spot market," as the marketplace for short-term sales of commodities outside of contract is known. Buyers of commodities under large contracts typically receive a discount for buying in bulk and committing to years of future purchases. So, Ecuador missed out on the opportunity to sell much of its oil at a higher price, further complicating its fiscal situation (Argus Media, [2017](#); Villavicencio, [2013](#)).

In exchange, though, China offered Ecuador a favorable deal in other ways. Of the \$2 billion lent, \$1.4 billion was for budgetary support. This was not oil-backed and was essentially discretionary (Dreher, Fuchs, Parks, et al., [2018](#); Garzón and D. Castro, [2018](#)). The remainder was split between two tranches of \$300 million each. The first of these went

toward sectors unrelated to oil, especially health but also security. The health and security projects were carried out by Chinese firms, although it is unclear whether that was a *de jure* requirement of the loan or a less formal arrangement. The second \$300M tranche was oil-backed and slated for the energy sector (Ecuavisa, 2013; Villavicencio, 2013, pp. 118–19; Garzón and D. Castro, 2018, p. 27). As in the previous cases, the oil-backed component carried a lower interest rate (6.87 percent) than the other parts (7.19 percent), but the gap shrank. This 0.32 percentage point differential stands in contrast to the 0.91 percentage point gap between the oil-backed (6.25 percent) and non-oil-backed (7.16 percent) parts of the second credit line (June 2011). As Ecuador ran out of oil production to mortgage, the risk management value of oil collateralization was dwindling as well.

At this point, China had secured as much oil output as it feasibly could, and only 15 percent of the financing package was backed by crude. Indeed, the \$1.4 billion in discretionary funding matched up well with the \$1.2 billion in remaining financing needs as of the third quarter of 2012. At this point, China's actions fell in something of a gray area between the theory's predictions for loans and for treatment of distressed debt. The theory predicts tougher treatment where resource security is involved. If we look at the third (2012) credit line as a loan, then this prediction is borne out: China got as much oil as it could. The directly oil-related part of the package was only \$300 million, however, and it is best to look at the \$1.4 billion in discretionary spending in particular as a *de facto* refinancing of Ecuador's debt. Because of its oil interests, China could not allow Ecuador to default, and it certainly could not allow a situation in which Petroecuador began cutting production due to lack of funding.²⁷ So, China lent just enough to keep Ecuador solvent, but did not actually demand any less in the way of commodities.

²⁷This is what happened in Venezuela. See Kaplan and Penfold (2019).

The oil-backed loans had, at least for the time being, run their course. China refocused on using the existing credit lines to generate business for its firms, as well as to ensure that funds were being spent on projects that could generate return. No further oil-backed loans would be issued until 2016; these will be covered in Section 6.2.1.3. No further pre-sales have been made to this date. However, before we move forward to events after the credit boom, we should first cover what was done with the money and how it also reflects a delicate dance between Chinese and Ecuadorian interests.

Where Did the Money Go? This section will cover all Chinese-built projects until the oil price crash of mid-2014. I begin with two sections on loans: first to the energy sector, which played a central role in the Correa administration's development strategy, and then to other projects. These loans include both those withdrawn under the oil-backed China Development Bank lines of credit as well as others receiving individual project-based financing. It is usually possible to establish whether any given project was part of an oil-backed line of credit, and I will make this distinction on a case-by-case basis. However, Ecuador frequently drew from several oil-backed lines of credit at once, and is difficult to know which line of credit backed a given project.²⁸ Because the previous section already outlined the differences between lines of credit, I will not dwell on them here. After the loans, I proceed to China's handful of equity investments in Ecuador during this time period before moving on to freelance contracts.

Loans for Energy: Hydroelectric and Oil Power, and particularly hydroelectric power, was part of Correa's plan for Ecuador from the beginning. Rivers and streams flowing down the slopes of the Andes provide ample potential for extra electrical output, and lower elec-

²⁸D. Castro Salgado (2019) helpfully narrows down these possibilities (e.g., "The dam was funded by either Line of Credit II or III"), but further available information remains fairly limited.

tricity prices could contribute to both further industrialization and an improved standard of living. Correa's original energy plan was to double electrical capacity and increase hydropower's share of the total from 53 percent when he took office to an eventual 90 percent. He also ran for office on an environmentalist platform and despite the events surrounding the Yasuní-ITT Initiative took zero-carbon energy fairly seriously in Ecuador's domestic electricity generation. A move to hydropower would carry obvious positives for pollution, a common concern for many city dwellers (Garzón and D. Castro, 2018, pp. 32–33). On a less positive note, these projects were on some level trophies to bolster Correa's image among the electorate. Technical experts have expressed doubt that a small country such as Ecuador could use all of the electrical capacity being built (Lozano, 2019). One critical journalist refers to them as "Pharaoh-esque works" (*obras faraónicas*) built as quickly as possible without much foresight (Villavicencio, 2013, Prologue). Fast-paced construction of large projects with uncertain economic prospects is a risky endeavor, meaning that China took extra care to protect its interests. Apart from oil collateralization, this also meant measures such as non-competitive tied bids and sovereign guarantees. I begin with the dams, followed by a smaller number of fossil fuel projects.

During Correa's term, Ecuador began work on eight new dams, seven of which were built by Chinese firms and six of which were funded by China (Garzón and D. Castro, 2018, p. 34; Lozano, 2019). The non-Chinese exceptions include one Brazilian-financed and Brazilian-built project as well as another financed by Russia but built by a Chinese firm. All of these are BRICS members whose governments are less averse to using public funds to protect their firms in high-risk markets²⁹; however, as is generally the case globally, China's deeper pockets propel it into a dominant position. I summarize the dams here in

²⁹Sierra (2017) and Stuenkel (2015).

sequence, including the lone non-Chinese project as a comparison case.

The first and largest project was the Coca Codo Sinclair dam. Accounting for 30 percent of national electricity demand by itself, the dam was the centerpiece of Ecuador's modernization drive. At the project's signing ceremony, Correa stated that "The signing of the contract is the largest foreign investment in the country's history, without having to kneel in front of anyone [...] and during a full international economic crisis."³⁰ (El Universo, 2009a; Garzón and D. Castro, 2018, pp. 39–41) Rhetoric aside, though, the reality of the deal was not particularly lopsided in Ecuador's favor. The dam had originally been agreed to in February 2008 as a joint venture between Ecuadorian state-owned power firm Termopichincha (70 percent ownership) and the Argentine state-owned firm Energías de Argentina (ENARSA; 30 percent ownership), which was also expected to provide 30 percent of financing. In September 2009, only a year and a half later, Ecuador bought out Argentina's share for only \$5.5 million. Argentina's departure was variously attributed to a lack of resources, concerns about the impact of the 2008 financial crisis, and Ecuador's constitutional changes establishing state control over the energy sector (Power Technology, 2019b; Yao Yang, 2018, p. 1; Vallejo et al., 2018, p. 4). The implications were that the project was too risky for Argentina's tastes; that Argentina (and most others) did not have the resources to build the project; and that equity investments continued to be difficult in Ecuador.

Whatever actually happened, a delegation from China Exim arrived in Quito to negotiate a new deal only a week after Argentina's departure, and newspapers were already reporting that Exim was considering bankrolling 85 percent of the project (El Comercio, 2009b). In a context of high risk, equity was being replaced with debt. Soon after, a new bid for

³⁰Translation by author. Original Spanish: *La firma del contrato es la mayor inversión extranjera en la historia del país, sin tener que arrodillarnos ante nadie (...) y en plena crisis económica internacional.*

the construction contract was conducted under Ecuador's new semi-competitive bidding system. As was discussed in Section 6.2.1.2, this new system allowed bidders to jump to the head of the queue by providing 75 percent or more of project financing. D. C. Castro Salgado (2014) elaborates:

The contracting was conditioned on financing, which was a great limitation to many bidders. As expected, the only firms capable of meeting the requirements were Chinese. Over the course of the auctioning process, there were presented only two bids. One met under the preestablished requirements: the Sinohydro-Andes Consortium (later only the Sinohydro Corporation of China, after Constructora Andes left the consortium and the Chinese firm decided to continue negotiations on its own [...])³¹ (62)

Another of Correa's institutional changes, the new bidding system, *de facto* did away with market competition, removing the majority of private firms without immediate access to millions in loans for a high-risk project and leaving only Sinohydro. At the project's signing ceremony, the Chinese Ambassador nodded to the risk issue, stating that "where others see risk, we see opportunities, and this country has many opportunities to grow" (El Tiempo, 2009).³²

The lack of competition opened the door to cost inflation or cutting corners on quality with impunity, but it also meant that Correa could move quickly and show visible results without relying on private multinationals. The contract with Sinohydro was signed in October 2009, leading to a period of wrangling over loan terms. China Exim wanted a series

³¹Translation by author. Original Spanish: *La contratación estaba condicionada al financiamiento, lo cual implicaba un gran limitante para muchos de los oferentes. Tal como se esperaba, las únicas capaces de cumplir con los requisitos serían las empresas chinas. En el transcurso de la convocatoria, se presentaron solo dos oferentes; uno fue calificado y cumplió con los requisitos preestablecidos: el Consorcio Sinohydro-Andes (posteriormente sólo Sinohydro Corporation de China, ya que la Constructora Andes se retiró del consorcio y la empresa china decidió continuar las negociaciones por su propia cuenta) [...]*

³²Translation by author. Original Spanish: *Donde otros ven riesgo, nosotros vemos oportunidades y este país tiene muchas oportunidades de crecer.*

of stipulations to manage risk, and these did not sit well with the Correa administration. China asked for a sovereign guarantee using assets of the Central Bank of Ecuador as collateral. Ecuador balked, at least partially because this may have violated parts of the new constitution (Garzón and D. Castro, 2018, p. 39). As Correa himself put it, “All of a sudden, negotiating with China is worse than with the IMF. They’re asking for incredible guarantees.” These guarantees were “really attacks on sovereignty,” he continued, and expressed his concern that the trajectory of relations with China were on the line (El Comercio, 2009a).³³ This dissertation’s theory treats both collateralization and IMF conditionality as unwelcome impositions on borrowers. President Correa apparently concurred, and unsuccessfully attempted to shop the Coca Codo deal with groups in Korea, Russia, and possibly others (Ellis, 2014, p. 143).³⁴

The deal proceeded, and in June 2010, China Exim agreed to fund 85 percent of the project with a \$1.68 billion credit (Garzón and D. Castro, 2018, pp. 38–39). It is unclear whether the central bank guarantee remained part of the deal, but either way, a more familiar type of risk management tool was used: repayment in oil. China Exim funded its share on a traditional cash basis, but the 15 percent for which Ecuador was responsible was funded via an agreement to sell oil to China (Harris, 2014a; Hydro Review, 2009). This is not technically an oil-backed loan, since the “oil-backed” and “loan” parts of the deal were separate, but it did provide a degree of extra security for Sinohydro, and indirectly for Exim as well. Apart from guarantees of commodity security, there was also an implicit guarantee of Chinese export interests: Garzón and D. Castro (2018, pp. 42–43) report that 75 percent of project components were imported from China. This has implications not just

³³Translation by author. Original Spanish: *De repente negociar con China es peor que con el FMI, nos estaban pidiendo unas garantías increíbles [...]*

³⁴El Comercio (2010) says groups from the United Kingdom, Spain, and Iran were also consulted.

for short-term trade statistics but also for trade in spare parts well into the future (Mattlin and Nojonen, 2015).

The Sopladora project also had its origins before the Correa administration but was enacted around the same time as Coca Codo. Sopladora had been planned since 2006 and was unique in that it was not actually a dam but an underground hydroelectric facility making use of the runoff from an existing dam (Harris, 2016). Ecuador held a (technically) open bid in 2009 but, again, asked bidders to provide at least 75 percent of project financing. The tendering process went similarly to that for Coca Codo: twelve companies bid, but only China's Gezhouba, in partnership with Ecuador's Fopeca, had the financial backing to meet the Ecuadorian government's request (D. Castro Salgado, 2019, p. 65). In October 2011, after a period of negotiation, China Exim agreed to a \$571.3 million loan. One interview-based report states that the loan was conditioned on Ecuador's acceptance of a new oil pre-sale agreement, the proceeds of which would flow into an Exim collateral account (Lucci, 2017, p. 9). This has not been confirmed elsewhere, but if true, it would mean that Exim has also used commodities as collateral in Ecuador. Exim has done this in many other countries, especially in Africa, but Ecuador's major oil-backed credit lines were all handled by CDB. Exim later continued its backing of Coca Codo and Sopladora in 2013 with a \$509.2 million loan to Harbin Electric to build the transmission lines connecting the hydropower plants to the national grid (Bnamericas, 2013; Garzón and D. Castro, 2018, p. 27).

A group of three dams and a wind farm, on the other hand, were backed by the known oil-backed CDB credit lines. In late 2011 and early 2012, a total of roughly \$680 million in financing from the credit lines went to the Delsitanisagua dam, built by Power Construction Corporation subsidiary HydroChina; the Mazar Dudas dam, built by China National

Electric Engineering Company (CNEEC); the Quijos dam, also built by CNEEC; and the Villonaco wind farm, built by Xinjiang Goldwind (REVE, 2011; PennWell, 2012; Ellis, 2014, p. 62). All of these put together sum to less money than the Coca Codo project by itself, and scarcely exceed the value of Sopladora. For the two larger dams, China negotiated project-level terms with more defined budgets and risk-management tools. For these smaller projects, however, the pre-negotiated line of credit was sufficient. This is consistent with the idea that China will drive a harder bargain where greater commercial interests are at stake.

The last of the six Chinese-funded hydroelectric projects was Minas San Francisco. Its history is somewhat similar to Coca Codo's in that it previously belonged to another firm as part of a deal that went bad. In a deal that predated Correa, it was originally built by Brazil's Odebrecht and funded by \$302 million in credits from the Brazilian Development Bank (BNDES). The loan also received \$150 million in guarantees from the Multilateral Investment Guarantee Agency, the World Bank's risk insurance wing. The project's implementation did not go smoothly, however, and a series of technical failures emerged. Ecuador sought reimbursement and threatened to expel Odebrecht not just from Minas San Francisco, but also from several other unrelated projects. In September 2008, Correa sent the military to take control of \$800 million in construction project sites and expelled Odebrecht from the country; two months later, Ecuador filed a lawsuit to stop paying the BNDES loan which funded the dam (Hydro Review, 2008b; International Rivers, 2008; Riveras, 2008; Valencia, 2008). After the extreme circumstances under which the project fell through, few were interested in taking it on, and it sat vacant for several years. Eventually, in January 2012, Harbin Electric³⁵ was invited without a bidding process to participate

³⁵Per Kirchherr and Matthews (2018), Sinohydro may have been involved as well.

(Wangyi Caijing 【网易财经】 , 2012; D. C. Castro Salgado, 2014, pp. 67–68). In April 2013, Harbin Electric received a \$312.5 million loan from China Exim, which yet again was entering spaces in which others were not interested (America Economía, 2013; Garzón and D. Castro, 2018, p. 27).

This was the last of the Chinese-funded dams, but there was one more Chinese-built one. Odebrecht's expulsion also left a vacancy at its Toachi-Pilatón hydroelectric project, a grouping of two dams. Its \$452 million million was partially backed by \$170 million from BNDES, with the rest coming a government fund containing oil revenues from assets seized from Occidental after its expulsion (Hydro Review, 2007, 2008a). After the Brazilian departure, the Export-Import Bank of Russia took BNDES's place with \$123.2 million in credit to facilitate the purchase of equipment from Russia. The rest, a sum of \$250 million, came from Ecuador's own Social Security Institute Bank (*Banco del Instituto Ecuatoriano de Seguridad Social*, or "Biess") (Plan V, 2018). Biess is a state organization founded in 2009 as part of the 2008 constitutional changes and holds a mandate to administer Ecuador's social security funds (Biess, 2012). The new contract went to the Russian state-owned firm, Inter RAO, which supplied much of the equipment, and the Three Gorges subsidiary China International Water & Electric (CWE) (Plan V, 2018). Russia used a fairly similar strategy to China's to finance the export of equipment toward a project with a checkered recent history; China made an appearance here not as a funder, but as a freelancer making use of money from the Ecuadorian central government and (indirectly) the risk guarantee provided by Russian state funding to its business partner.³⁶

This leads us to the lone totally non-Chinese dam at Manduriacu. In 2012, Odebrecht was allowed to reenter the country and won the smaller (\$126 million) contract using \$90.2

³⁶By 2011 and 2012, the project was beginning to encounter problems with delays and cost overruns. These will be covered along its more substantial problems post-oil price crash in Section 6.2.1.3.

million in credits from BNDES (Odebrecht, 2012). This appears to have been a *de facto* closed bid: BNDES had agreed to back Odebrecht's bid six months prior to the actual tender. Odebrecht was already hiring personnel for the project when Ecuadorian government announced a bid for "invited" firms only (Ecuador Review, 2015). The project was substantially smaller than many others. This could be taken as a sign of some continuing wariness between Odebrecht and the Ecuadorian government, but may also simply reflect that Coca Codo in particular had already saturated the market for enormous electricity projects. BNDES also backed a much larger share of project value this time: roughly 71.5 percent, as opposed to 61.4 percent and 37.6 percent of the failed Minas San Francisco and Toachi-Pilatón deals, respectively.³⁷ Brazil may have been making greater demands on Ecuador in the way of debt repayment in order to protect Odebrecht against a repeat of previous events.

Apart from the dams, China was also involved in two fossil fuel projects: an oil-fueled power plant and an oil refinery. The power plant, named Termoesmeraldas II, was located in Esmeraldas, the site of Ecuador's primary existing oil refinery. This allowed for a ready source of fuel oil, implying a smaller bill for refined imports. In 2011, Harbin Electric was contracted to build the plant for \$101.4 million; 70 percent of this came from the China Development Bank (Corporación Eléctrica del Ecuador, 2020; Secretaría General de Comunicación de la Presidencia, 2008). This represented a small step toward energy independence, but Ecuador hoped to make much larger cuts to its imports of refined fuels. This would have come from the refinery, which as discussed in Section 6.2.1.2 was highly ambitious for the size of Ecuador's market and was ultimately canceled.

³⁷Estimates based on loan and contract values in Garzón and D. Castro (2018, p. 36) for Minas San Francisco and Manduriacu and Hydro Review (2008a) for Toachi-Pilatón, the original Brazilian loan for which was replaced by the later Russian one in Garzón and Castro's figures.

Loans for Other Infrastructure The 2010-2011 rush of activity in the hydroelectric sector tapered off as the government's plans moved off the drawing boards and into implementation. However, many of these dams—especially the larger ones—were financed on a project-specific basis, leaving the oil-backed lines of credit available for other use. Especially after the dam projects were underway, a stream of non-energy items began to draw Chinese financing.

One early such loan came in 2009, when Exim pledged \$50 million toward the purchase of two Chinese-built transport planes for the Ecuadorian Air Force. This deal fell through due to Ecuador's request that engine and other components be manufactured in Ecuador (El Universo, [2011d](#)). This is weak evidence in favor of the tradeoff between commercial and geostrategic interests: for a country with major geostrategic significance for China, the Chinese government might have nudged Exim and Xi'an Aircraft (the manufacturer) into taking a financial hit on the deal, but not in faraway South America.

The rest of the deals are a hodgepodge of assorted items. In the period before the mid-2014 oil price drop, the China Development Bank oil-backed loans went toward a flood control project at Chone (\$52 million; 2011); the ECU 911 emergency response and police surveillance system (\$240 million; 2012); a related Transporte Seguro ("safe transit") system installing cameras and help buttons on public transit (\$107.6 million; 2013); and five hospitals (\$325.9 million; 2013) (Fox, [2012](#); Ellis, [2014](#), pp. 62–63; Xinhua, [2015](#); El Universo, [2017a](#); Dreher, Fuchs, Parks, et al., [2018](#); D. Castro Salgado, [2019](#), p. 310). Per D. Castro Salgado ([2019](#), p. 310), these were all part of Credit Lines I-III and as such carried interest rates between 6.00 and 7.19 percent.

In the interim, in 2013, Exim added one more project: an \$80 million loan to expand the roadway leading to Quito's airport. This loan charged only 2 percent interest and was

payable over twenty years with a five-year grace period (Ministerio de Relaciones Exteriores y Movilidad Humana, 2012; Dreher, Fuchs, Parks, et al., 2018; Garzón and D. Castro, 2018, p. 28). These terms are obviously quite different from the higher-interest, oil-collateralized CDB loans previously mentioned. Another outlier also came in 2013, in the form of a \$298.9 million loan from the Bank of China, a Big Four commercial bank, and the Hong Kong branch of Deutsche Bank.³⁸ This loan, which went toward the large Cañar y Naranjal flood control project, was repayable over fourteen years with four years grace and a variable interest rate of the six-month LIBOR rate plus 3.5 percent (Dreher, Fuchs, Parks, et al., 2018; Garzón and D. Castro, 2018, p. 28). Since LIBOR rates were below 1 percent at that point, this was also more favorable than the CDB terms, not to mention the lack of oil collateralization (Federal Reserve Bank of St. Louis, 2020). A smaller (\$55 million) flood control project at nearby Bulubulu was funded with CDB credit, but the trend was toward more concessional, non-oil-backed loans by other banks (Empresa Pública del Agua, 2013; Garzón and D. Castro, 2018, p. 310). By 2013, when these more concessional loans were made, the CDB's terms were already locked in place per the credit line agreements, and any flexibility in Chinese policy was likely to come from other banks which had not already poured large sums into Ecuador. Exim and Bank of China's laxer terms might be due to a desire to manage bilateral relations—this would be consistent with the theory, although actual evidence of this would be difficult to observe. A more observable explanation, though, has to do with Ecuador's fiscal situation. China's "budgetary support" oil-backed credit line of December 2012 essentially kept Ecuador's government solvent for another year, and based on their negotiating tactics—holding out for the best possible deal—Beijing was aware of Quito's situation. Ecuador was clearly a riskier bet in 2013 than in the previous years, leading to greater doubt about its ability to service the more

³⁸It is not clear how much of the loan came from each bank.

important oil-backed loans. Credit to Ecuador on cheap terms would keep it afloat and able to continue drilling for oil. China also used this strategy—using concessional terms on less important projects to maximize the odds of repayment on more important ones—in situations of more serious debt distress in Niger and Venezuela, among others (8).

Equity in Mining Equity was not a major part of Chinese market entry strategy during this time period. Apart from the aforementioned refinery, two more examples took place, both in the mining sector. The first was relatively early on, in 2010, when a consortium of Tongling Nonferrous, which is owned by the province of Anhui, and central-government owned China Railway purchased Canada's Corriente Resources for \$652 million. Corriente owned several copper deposits in Ecuador, most notably the major Mirador site (Ellis, 2014, p. 18; Garzón and D. Castro, 2018, p. 31). The use of equity investment makes this deal stand out, but there are good reasons for it. First, the deal happened not only via Ecuador's institutions, but also Canada's. The actual transaction took place in Canada, where Corriente had been listed on the stock market (Corriente Resources, 2010). This would have obviously complicated any bilateral loan deal between China and Ecuador. Second, there was important cross-sector variation in political risk. Following the 2008 Constitution, oil production and electricity generation were off limits to majority foreign investment. Minority foreign shareholding was still legal, but investors were nervous enough to avoid it. Ecuador's small mining sector, in contrast, was a less lucrative target and was subject to much less political interference. The Mirador investment was not without political problems: after Tongling officially gained a license to mine at Mirador in March 2012, indigenous protests put the project on hold for a month and at one point took over the Chinese Embassy in Quito. The issue was ultimately sorted out, but only after Tongling threatened to withhold its first \$40 million royalty payment to the government (Ellis, 2014, pp. 149–

50). Project risk due to local community relations presents an interesting counterpoint to political risk from higher levels of government. Problems such as weak judiciaries and inconsistent contract enforcement present risk at the financing level and are more damaging to equity than to debt, but community protests are an operational-level risk and will affect a project the same way regardless of variation in financing arrangements. China would have had similar problems if they had issued a copper-backed loan to run the mine. Tongling and China Railway were not deterred: in March 2012, they agreed to invest another \$1.44 billion over time to develop the mine (Llangari, 2015).

A similar deal was made in 2013, when Hong Kong-based private firm Junefield and the provincial SOE Hunan Gold bought the Rio Blanco gold and silver mine from Canada's International Minerals. Again, the Canadian dimension of the deal made equity a more logical course of action. The main difference is that this deal involves smaller firms, one of them private and domiciled outside the mainland, with less clear connections to policy-making apparatus in Beijing (Ning Hui, 2019).

Other Contracts Chinese firms engaged won a handful of freelance contracts during this time period. In addition to China Water & Electric's hydroelectric partnership with the Export-Import Bank of Russia, other contracts came from the telecommunications, transportation, healthcare, and oil sectors. China's two major telecoms firms, Huawei and ZTE, have both been involved in building and upgrading Ecuador's cellular networks. Ecuador's telecoms authorities are opaque, and details in this area are sketchy, but it is known that Huawei and France's Alcatel were paid \$72.2 million for work on Ecuador's 3G network and earned an undisclosed amount on the later 4G system as well (El Universo, 2011b; Comms Update, 2013; Ellis, 2014, p. 109). This is probably a minority of total activity: one of Ecuador's major newspapers found that Huawei and ZTE together earned \$150 million

in Ecuador in 2011 and 2012 (Araujo, 2014). As discussed in Section 4.2.1.4 on Burundi and Rwanda, China's subsidization of its telecommunications industry has allowed the construction of bargain-priced networks to become a tool of diplomatic outreach, especially in developing countries which cannot afford more expensive competitors (Mackinnon, 2019). This is a concrete example of the counterintuitive finding of Chapter 5 that freelance contracting can be better for bilateral relations than actual provision of credit—the Chinese government subsidizes projects through indirect financing at home such that lower-income governments can buy at a discount.

Other Chinese firms entered less because of any particular state backing and more because other funding was available. In 2008, Guangxi Road and Bridge received credits from the Inter-American Development Bank (IDB), the Western Hemisphere's largest regional multilateral development bank, to build a \$100 million dollar, 1.25-mile bridge over the Babahoyo River (Uechi et al., 2009; Ellis, 2018, p. 89). In 2012, China Railway No. 14 built a small hospital in Ecuador's Amazonian region using \$25 million from the national social security fund, which in turn drew on oil revenues (El Telégrafo, 2012; El Universo, 2017b). These deals reflect differentiation with China's credit-based domestic political economy. Major national champions such as Sinohydro and Gezhouba received massive, project-specific state support to create business opportunities in a high-risk market, with the Ecuadorian government taking on debt and acceding to Chinese conditions in the process. Huawei, also a major firm, received generalized state support at home and passed this on to the Ecuadorian government in the form of low prices; this is better for relations with the recipient government, but does not provide quite as explicit a guarantee to the firm. Lesser-known firms like Guangxi Road and Bridge are more likely to rely on funding through more conventional channels. This is hard to come by in a country like

Ecuador, but the Inter-American Development Bank and domestic oil-sector savings did provide some limited opportunities.

The last type of Chinese contracts during Correa's early years in office were not fully China's decision. Ecuador's 2008 decision to begin converting foreign oil investments into service contracts went into effect in 2010 (*Ley Reformatoria* 2010). Blocks 14 and 17, which CNPC and Sinopec had purchased from EnCana in 2006, were affected alongside the rest (El Diario, 2008). This process also resulted in a \$610 million contract to Andes Petroleum (a CNPC-Sinopec joint venture) to service Block 43, which had also passed to them as part of the EnCana deal (Secretaria de Hidrocarburos del Ecuador, 2010). This block was later expanded to include parts of Yasuní National Park, so its financial value has since increased. The oil firms had lost tenure despite legal contracts, and the risk of equity purchases in a weak institutional environment was on full display. That being said, CNPC and Sinopec did not leave. In 2011, Ecuador began publishing data on private investment in the oil sector, with the caveat made clear that "investment" meant funding put toward production capacity but not actual legal title. With that caveat in mind, CNPC and Sinopec accounted for 36.1 percent of private investment in 2011, 45.8 percent in 2012, and 56.9 percent in 2013.³⁹ Others might have begun to dial back, but financial backing from the home government and participation in an oil-backed loan scheme gave the two Chinese firms the cover they needed to stay.

6.2.1.3 Correa in Crisis

With major projects already underway and all oil production already mortgaged, the nature of the Sino-Ecuadorian relationship shifted from creating new arrangements to maintaining

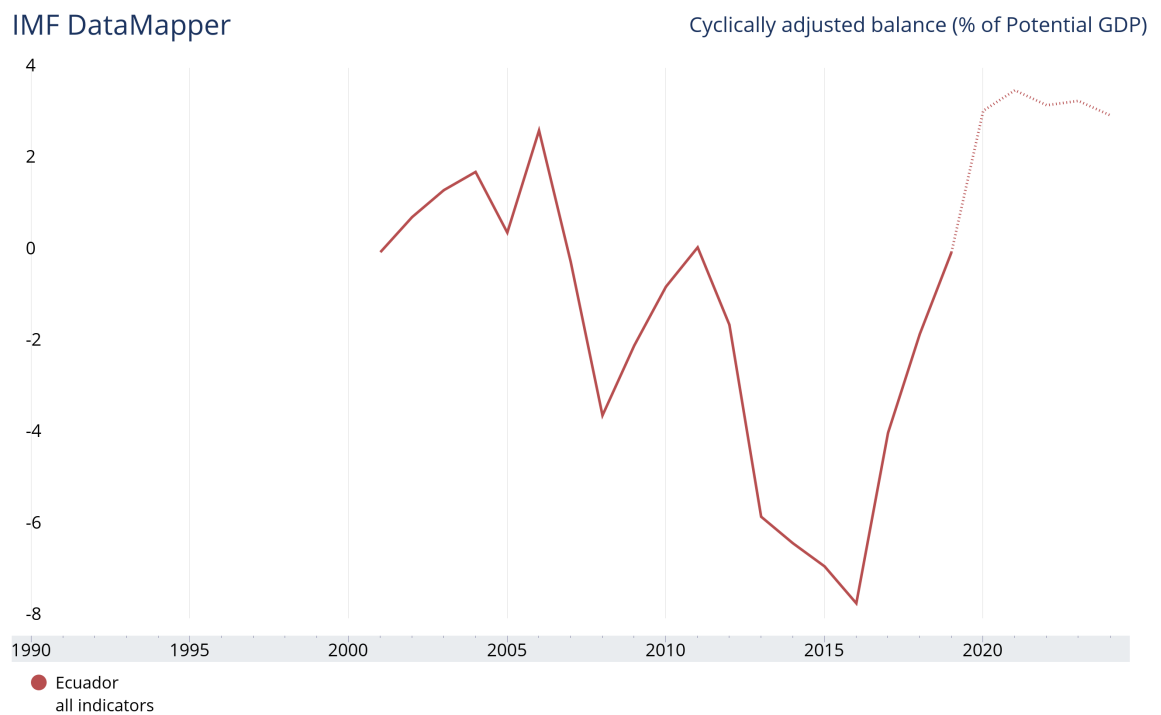
³⁹Calculated by author using data from Agencia de Regulación y Control Hidrocarburífero (2017) and Agencia de Regulación y Control Hidrocarburífero (2018b).

the old. The fall in oil prices stretched Ecuador's already fraying ability to service the existing loans. The period from mid-2014 to Correa's departure from office in January 2017 saw two major trends. First, China remained involved, but mostly by making use of oil-backed credit already pledged but not yet drawn upon, with some additional deals on the margins. Second, Ecuador began to attempt to diversify away from overreliance on China, with mixed results. I address these two trends sequentially before moving forward to events under the administration of Lenín Moreno.

Chinese Financing, Continued Lower oil prices were taking a toll on Ecuador's public finances. Government revenues were falling, but many capital expenditures had already been agreed upon as part of infrastructure packages, and the government was reluctant to significantly cut social spending. The result was major annual deficits which hit their trough at 7.67 percent of potential output in 2016, Correa's last full year in office.

Late 2014 and 2015 saw slower growth in Chinese credit to Ecuador. Further oil-backed deals were no longer a feasible option, and CDB's presence was limited to the use of existing credit facilities. Exim and the commercial banks, however, continued to expand in a more limited capacity using tied cash loans. A few freelance contractors found room to operate as well, although this grew difficult under Ecuador's increasingly tenuous financial situation. With the markets for electricity generation already saturated, these newer projects were more diverse in sectoral terms, including more social-sector projects, often on favorable terms. This is consistent with two theoretical predictions. First, bilateral relations were suffering. China had demanded stronger risk protection measures than Ecuador had anticipated, and Ecuador was having greater trouble repaying than either side had anticipated. Easier terms could help mend some of the damage. Second, the theory predicts that where commercial interests at stake in distressed debt negotiations, China will attempt

Figure 6.4: Ecuadorian Budget Government Surplus/Deficit, 2001-2019



©IMF, 2019, Source: Fiscal Monitor (October 2019)

Source: Graph generated by IMF Data Mapper using data from International Monetary Fund (2020a).

to recoup as much of its losses as possible. The risk of default had become more palpable than China anticipated, and sending cheap credit toward social sectors could ease Ecuador's budgetary burden in these areas and allow more resources to be diverted toward servicing the oil-backed loans, all without the Ecuadorian government having to cut back on generous social spending programs.

One earlier such social sector project occurred in the healthcare sector. Hospitals built with oil-backed CDB credit under a series of 2013 agreements had a multiplier effect for Sino-Ecuadorian business even after oil prices fell. In 2014 and 2016, Sinopharm was awarded a pair of contracts worth \$60.1 million and \$59.4 million, respectively, to build a new pharmaceutical factory and to supply medical equipment and medicine to hospitals (Ecuavisa, [2016](#); El Universo, [2017b](#)). At least one of the hospitals being supplied had been built in Esmeraldas under the CDB credit line beginning in 2013 (Sinopharm, [2017](#)). The second of the two contracts was also funded under one of the CDB credit lines; the first's source of funding remains unclear (Dirección Nacional de Infraestructura Sanitaria, Equipamiento y Mantenimiento, [2017](#), p. 59).

The Bank of China–Deutsche Bank (Hong Kong) consortium that had supported the 2013 Cañar y Naranjal flood control project returned in November 2014 with \$312.0 million for ten road projects; they added another \$85.7 million for three roads in March 2015. Like the consortium's previous loan to Ecuador, these carried variable interest rates of 3.50 percentage above the six-month LIBOR rate. Again, since LIBOR rates remained below one percent at this point, this was still more favorable than the CDB credit lines with both 6 to 7 percent interest and oil backing, albeit with some risk related to the likelihood that interest rates would rise during the fourteen-year payback period. The loan also came with a four-year grace period, leaving Ecuador with some time to deal with the fallout of

low oil prices before payments came due (中国驻厄瓜多尔经商参处【Economic and Commercial Office of the Chinese Embassy in Ecuador】 , 2014; D. Castro Salgado, 2019, p. 304; Federal Reserve Bank of St. Louis, 2020). In January 2015, China Exim also added \$250 million to export induction kitchens manufactured by privately held national champions Haier and Midea. Less polluting, more energy-efficient kitchens were part of the Ecuadorian government's Human Development Grant (*Bono del Desarrollo Humano*) conditional cash transfer and social benefit program (El Universo, 2015; K. P. Gallagher and Myers, 2019; Vasconez, 2015). The terms of the loan are regrettably unavailable, but as in the case of the highways, China was backing one of Correa's social initiatives. This would certainly be good for bilateral relations and would also free up resources to service the oil-backed loans.

The last oil-backed loan had been issued in November 2012; by the end of 2015, both pre-sales and the first credit line had already matured (D. Castro Salgado, 2019). A pair of January 2016 agreements broke this streak. On January 22, the Industrial and Commercial Bank of China (ICBC) committed \$970 million in further credits to the Ecuadorian government via Petroecuador (Valencia, 2016). This loan was backed by an oil purchase agreement, a first in Ecuador for any Chinese lender other than the policy banks (CDB and Exim). Four days later, the CNPC-Sinopec joint venture Andes Petroleum signed contracts to explore for four years and drill for twenty in Blocks 79 and 83, two new oil blocks in the Amazon (Agencia de Regulación y Control de las Telecomunicaciones, 2016). These were adjacent to the Yasuní National Park production blocks which had been opened in exchange for CDB oil-backed credit and were by some accounts even more biodiverse (Ray and Chimienti, 2015, pp. 24–25). History appeared to be repeating itself as new oil exploration funded new loans, although there was no official statement linking the two. Without

additional exploration, Ecuador had no more oil left to pledge as collateral, and the dire budgetary situation spurred Correa to drill in areas with unpopular ramifications for indigenous groups and the environment. The loan was totally discretionary, meaning it could be used to make up at least part of Ecuador's budget shortfall, but ICBC demanded tough terms in return. The interest rate was variable, a first for an oil-backed loan in Ecuador, and indexed to the three-month LIBOR rate plus 6.5 percent (Dirección Nacional de Consistencia Presupuestaria, 2016; Ellis, 2018; D. Castro Salgado, 2019, p. 304). At the date of the loan's signature, the LIBOR rate was roughly 0.62 percent, meaning a 7.12 percent initial interest rate Federal Reserve Bank of St. Louis (2020). This was comparable to the pre-sale interest rates of 7.16 and 7.25 percent, but for the fact that rates were climbing at that time. The loan also had no grace period, which had been true of the pre-sales but never of the oil-backed credits. China was willing to bear the risk of supporting Ecuador's high deficits, but only at a steep cost.

Ecuador still needed cash and was courting other sources—the official announcement of the new Andes Petroleum exploration deal was headlined “Private investors trust Ecuador”⁴⁰—but found it hard to come by. In April 2016, three months after the ICBC and exploration deals, a larger, partially oil-backed loan package was announced. CDB was to add \$2 billion in new credit lines. This included \$1.5 billion at 7.25 percent tied to infrastructure projects and another \$500 million backed by oil at 6.87 percent. Notably, the oil-backed component was slated “to pay contractors from approved projects” (D. Castro Salgado, 2019, p. 304). China was using the potential for new oil production to secure payment for its firms, which were nervous about their Ecuadorian client's fiscal position. In effect, \$500 million in potentially or actually distressed debt was being restructured to be collateralized

⁴⁰Translation by author from original Spanish: *Inversionistas privados confían en el Ecuador*. See Agencia de Regulación y Control de las Telecomunicaciones (2016).

with oil; or, at least, this change was being made for firms not already contracted under oil-backed lines of credit. This is consistent with theoretical predictions that where commercial interests predominate over diplomatic or geostrategic, China will be less forgiving toward debtors.

Tied to infrastructure projects, the remaining \$1.5 billion was more demanding on the Ecuadorian government than the discretionary ICBC loan, but it did give them some room to continue investing in public works projects. Trends in Chinese financing during Correa's last year in office generally paralleled trends from before the new oil-backed credit infusion in that they combined some projects under the CDB umbrella with some negotiated case-by-case from sources. They also maintained the 2014-2015 focus on social sector spending and public services.

CDB backed the construction of a \$198 million government building,⁴¹ two universities for \$58 million,⁴² and \$45 million in sports facilities. The terms of these were already set by the CDB credit arrangements, so there was little to negotiate here.

We can gather more from the terms of Exim's deals, which were negotiated independently. The \$198 million "City of Knowledge" university and innovation complex and \$102.5 million Santa Elena aqueduct were both funded at 3 percent interest with twenty years' payback and five years' grace. Again, low interest rates and generous grace periods gave Ecuador the ability to maintain levels of social sector investment while still paying back the oil loans (Empresa Pública del Agua, 2017; D. Castro Salgado, 2019, p. 304). The terms for the Exim-backed Guayasamín toll road project were less generous—7 percent interest

⁴¹Servicio de Contratación de Obras (2015).

⁴²There may have also been a third. CAMC, which was contracted to build the two universities known to be backed by CDB, also built a third \$30 million campus for which details of funding are unavailable. See China CAMC Engineering Co. (2017) and El Universo (2017a).

and 15 years' repayment—but still more favorable than the shorter-term oil-backed loans. In the case of the toll road, Exim was using tougher terms in other areas to compensate. A tunnel connecting central Quito with a nearby valley, the project was backed by toll revenues—common in this sector—and came with a less common stipulation that Ecuador not build any competing thoroughways for thirty years (Auditoría Gobiernos Seccionales, 2017; Deniz and Borja, 2017; Pacheco, 2017). Exim was finding ways to lock down its interests in a country under increasing financial duress.

As the theory would have predicted, the above projects all involved debt to the Ecuadorian government. However, there were exceptions. First, in April 2016, an earthquake hit Manabí province, killing 668 people and damaging 35,000 homes (International Federation of Red Cross and Red Crescent Societies, 2016). China responded with \$150 million in grant aid to rebuild a hospital and 400 homes (DPA, 2016). Another \$167 million came as a loan from the Bank of China to rebuild schools; this was made at low interest (six-month LIBOR plus 3.5 percent) and over twelve years (Garzón and D. Castro, 2018). It is difficult to generalize much from these extraordinary circumstances, though, as China might have given the aid to a disaster-stricken country regardless of any other financial arrangements.

Other deals were more mundane. In 2016, China Road and Bridge purchased the Hotel Quito for \$30.8M. The proceeds of the sale went to Ecuador's social security fund, which was spinning off assets to cover its debts. So, to the degree that the deal was state-directed, it could have been done toward the greater good of maximizing Ecuador's ability to repay the larger loan packages (El Telégrafo, 2016a; Quiroz and Orozco, 2016). In any event, the deal was much smaller than any of the major loan packages. Similarly, the provincial mining firm Shandong Zhaojin has invested \$1 million in a local affiliate to explore for gold (T. Daly, 2018b).

Ecuador Attempts to Diversify By 2016, the Ecuadorian newspaper *El Comercio* estimated that China held around 8 percent of Ecuadorian GDP in debt, and the Correa administration was beginning to realize that China's oil-heavy financing model was approaching its natural limits (DPA, 2016). Ecuador attempted to branch out to other partners, both to gain leverage *vis-à-vis* China and for the more immediate task of paying its bills. These efforts had only modest success, but they are theoretically important in that they provide interesting contrast cases with Chinese policy. First, I discuss oil deals with Thailand and Oman. Second, a pair of port projects contrasted sharply with Hong Kong-based Hutchison's failed investment at Manta.

In July 2015, Ecuador secured a \$2.5 billion oil pre-sale not from China, but from PTT, Thailand's state oil firm. This pre-sale charged interest of the 30-day LIBOR plus 6.97 percent, which put the interest rate above either of China's with the potential to rise. However, it does not appear to have been tied to any particular purpose, although the Ecuadorian Ministry of Finance vaguely said that it would go toward "public investment in infrastructure" (Economist Intelligence Unit, 2015). Thailand's construction sector, while not small, cannot so easily handle \$2.5 billion in new contracts as China's; similarly, the backing of a smaller state did not allow PTT to grant the slightly lower interest rates afforded by CDB. In December 2016, \$600 million more in oil pre-payments came from PTT, plus another \$300 million from Oman Trading International (Parraga and Valencia, 2016). These were smaller deals with smaller countries, but they did at least take some pressure off of the Sino-Ecuadorian relationship.

While the Thai and Omani arrangements were more similar to China's loan-for-oil or pre-purchase deals, two sets of port investors took a very different tack. The port complex at Manta, where a planned investment by Hutchison had fallen victim to an early dispute

with the Correa administration, was as of December 2016 to go to the Chilean private firm *Agencias Universales* (AGUNSA). AGUNSA downsized Hutchison's \$423 million plan to a more modest \$177.3 million for a forty-year build-operate-transfer (BOT) agreement. This meant nixing planned expansion of fishing facilities. These had been a priority for a firm based in food-insecure China, but not for a competitor looking only at profits and coming itself from a major seafood-exporting country (AGUNSA, 2017; Port Strategy, 2016).

Another 2016 deal saw a consortium of Dubai's DP World (78 percent) and local conglomerate Nobis (22 percent) agree to build a major \$1.2 billion complex under a fifty-year leasehold at Posorja. This was near the largest city of Guayaquil but located near deeper waters, better for large post-Panamax vessels. While China's plans for a large complex at Manta were of questionable market logic, location both near Guayaquil and Ecuador's banana belt—the second major export after oil—meant more players were willing to sign up for the Posorja plan (El Telégrafo, 2016b; Proparco, 2018a). The first wave of financing consisted of \$147 million from the Inter-American Development Bank (IDB); \$50M from the China Co-Financing Fund for the Americas (a cooperative project between the China Development Bank and IDB); \$130M from the German Development Bank (DEG); and \$50M from Proparco, France's international development finance agency (DP World Posorja, 2018; IDB Invest, 2018; Patrini, 2018; Proparco, 2018a,b). Subcontracting for construction work is still underway but has so far included \$140 million to China Harbour Engineering (CHEC), \$100 million to Belgium's Flanders Dredging, and \$29 million to an Ecuadorian-Costa Rican group (El Universo, 2018). China is involved, but only as one of many parties in a much more open setting. This multinational equity investment also holds more of its own risk, rather than using debt to transfer it to the recipient. As the manager

of the Guayaquil Port Authority put it:

Today in Posorja there is no dock, no port, no cargo. So this is an important investment where the risk is assumed 100 percent by the investor. The State won't put up a single cent [...] (After the concession ends), as for all of these concessions, all that infrastructure will pass into the hands of the State without any type of expenditure.⁴³ (El Telégrafo, 2016b)

Outreach to Thailand and Oman and two port investments did begin to strengthen Ecuador's position, but not enough to change a fundamental pattern of isolation from international markets and over-reliance on debt. The institutional changes at the beginning of Correa's term scared off most other than China, and the pendulum was now swinging in the opposite direction. A more important change came in May 2017, when Lenín Moreno took office as President.

6.2.1.4 Lenín Moreno and Future Trends

Facing flagging support, a weak economy, and rumors of corruption, Correa did not seek reelection in Ecuador's February 2017 voting, instead nominating his former Vice President Lenín Moreno. A leftist by nature but pragmatist by circumstance, Moreno has backtracked on many but not all of his predecessor's institutional changes (Ellis, 2018). As of this writing, Moreno is still in his office, and his track record is not yet set in stone. However, he has so far charted a middle ground between Correa's weakening of the rule of law and the relatively rigid legal protection of investors of the early 2000s. The results have also been something of an intermediate—modest interest from private investors, a contentious return to the Bretton Woods institutions, and continuing engagement with China on somewhat

⁴³ Author's translation from original Spanish: *Hoy en Posorja no hay muelle, no hay puerto, no hay carga, entonces es una inversión importante donde el riesgo es asumido 100% por el inversionista. El Estado no pondrá un solo centavo (...) (Luego de que termine la concesión), como en todas las delegaciones de concesiones, toda esa infraestructura pasará a manos del Estado sin ningún tipo de desembolso.*

more favorable terms. I discuss, in turn, 1) greater scrutiny of the corruption and quality control issues which can result from tied procurement; 2) renegotiation of oil deals and smaller arrangements with China; and 3) Ecuador's return to the IMF.

The Levee Breaks: Problems in Implementation The tied nature of Chinese projects has led to serious problems in implementation. There is clear theoretical logic behind why tying contracts would be an imposition on the borrower, but this section will add empirical evidence of how these arrangements can shield contracting firms from risk at the recipient country's expense. The point of tied arrangements—or, at least part of the point—is that contracting firms can count on banks to prop them up in the event that a high-risk project encounters difficulties. The intention may have been to shield firms from events in the recipient country, but the moral hazard created by easy access to bank credit with weak budget constraints is just as likely to allow for wrongdoing by the contractor (Russel and Berger, 2019). In Ecuador, the lack of competition in the bidding process has allowed firms to cut corners on quality, inflate costs, and sometimes engage in corruption with no real consequences. After all, if they are expelled, they take the project's funding with them, and Ecuador has few other places to which to turn. Cases of poorly executed tied projects provide causal process observations for the moral hazard intentionally built into the tied procurement system.

The eight hydroelectric projects provide a natural avenue for comparison. Lozano (2019) points out that of the eight, only one (the Brazilian-built Manduriacu dam) was completed on time. Many have also suffered from substantial cost overruns. Table 6.5 lists estimates of cost overruns alongside how much of the project was financed by foreign loans.

Table 6.5: Dams and Cost Overruns

Project	Lender	Loan	Contract: Planned	Percent Funded	Contract: Actual	Percent Overrun
Toachi-Pilatón	Russia Exim	123.2	512.0	24.1%	589.0	15.0%
Minas San Francisco	China Exim	312.5	509.0	61.4%	684.0	34.4%
Coca Codo	China Exim	1682.7	2675.0	62.9%	2851.0	6.6%
Sopladora	China Exim	571.0	882.0	64.7%	963.0	9.2%
Manduriacu	BNCES	90.2	135.0	66.8%	227.0	68.1%
Quijos	CDB	95.5	115.9	82.4%	155.0	33.7%
Mazar Dudas	CDB	41.6	50.0	83.2%	83.0	66.0%
Delsitanisagua	CDB	185.0	216.0	85.6%	335.0	55.1%

All figures in millions USD.

Based on data from Garzón and D. Castro (2018, p. 36).

Several important trends stand out. The table is ordered such that projects receiving a lower percentage of development bank financing are listed first. In general, the more money a project receives from foreign policy banks, the more cost overruns it is likely to have. Projects reliant on domestic savings or tax revenues face stricter budget constraints than those backed by banks whose mandate includes propping up their firms even when commercial banks might not. This is admittedly a small sample, but the Pearson correlation coefficient between the percentage of a project backed by an external loan and the percentage budget overrun is 0.549 percent overall, and 0.783 percent for the six Chinese-funded projects. For the Chinese-funded cases, the distinction between Exim and CDB projects is also useful. The Exim loans were negotiated individually and independently from large lines of credit. So, it is more difficult for them to overrun their budgets without having to renegotiate with the bank. The CDB loans, on the other hand, were part of large oil-backed lines of credit which were only partially tapped. Contractors using CDB loans knew that there was already a pre-approved source of additional financing and were in a better position to allow costs to rise. Villavicencio (2015) further notes that these eight publicly funded dams cost an average of \$2,741 per installed kilowatt of capacity, or 41 percent more than the \$1,608 per kilowatt associated with a comparison set of six privately funded dams.⁴⁴

Within-case qualitative observations from the largest dam support the intuition as to why this is the case. Despite not drastically exceeding its budget, the Coca Codo dam is a poster child for these problems. There were serious questions from the outset about such a large project in a small electricity market, and Sinohydro entered with the backing of tax revenues funneled through Exim. The tied modality which pushed Sinohydro into the project

⁴⁴See also Garzón and D. Castro (2018, p. 37).

may also have prevented its successful implementation. Technical problems emerged relatively early in the construction process and continued to mount over time (Villavicencio, 2013). In December 2014, a part of the construction collapsed, killing thirteen workers. Sinohydro continued construction, and the work was declared complete during President Xi Jinping's November 2016 visit to Quito, but as of December 2018 engineers had only once attempted to push the dam to its full generation capacity, and this led to an electrical grid outage. No fewer than 7,648 cracks in the works have been observed (Casey and Krauss, 2018; Garzón and D. Castro, 2018, pp. 38–44). There were attempts to correct course. A Mexican government organization wrote a report questioning whether thirty-year-old projections for water flow could still be counted upon given the drying effects of climate change, but the report was ignored by government officials determined to move quickly toward a visible achievement. The *New York Times* reports that “a senior engineer sent records to Mr. Correa, the president, asking to brief him on the problems, according to documents viewed by the *Times*. The engineer was fired days later” (Casey and Krauss, 2018). Correa was primarily interested in building a political trophy, and Sinohydro was in a financial position to oblige without putting any degree of effort into quality control. There may have also been corruption involved. Vice President Jorge Glas is already in prison for taking bribes from Odebrecht, and he and several associates are currently under investigation for the Coca Codo project based on leaked audiotapes and bank statements (Casey and Krauss, 2018). Corruption has always been a problem in the infrastructure sector and is much easier to achieve in closed-door deals without competitive bids. Coca Codo may have had a tougher budget constraint than the CDB-backed projects, but in the absence of competition, this led Sinohydro not to act more efficiently but to cut corners.

Apart from delays and cost overruns, several of the other projects also developed quality

problems. Delsitanisagua was finished two years behind schedule and suspended even after its formal “opening” due to problems with the turbines (Primicias, 2019). China National Electric Engineering Company (CNEEC) has been kicked out of both the Quijos and Mazar Dudas projects for breach of contract (essentially, failure to complete works) (Deniz and Borja, 2017).

Lastly, but by no means least, a January 2019 audit found that of \$4.9 billion in audited oil-related infrastructure funds, \$2.5 billion had gone missing, including from the canceled Refinery of the Pacific project at one point backed by China (Pipoli, 2019). Correa's institutional change to allow closed bidding opened the door for very bad behavior, and the Moreno administration has begun to take steps to address the issue. Better management of these problems could allow Ecuador to bargain its way to more favorable financing terms as more international actors regained interest. The Moreno administration was certainly hoping for this as they pushed to restructure Ecuador's relationship with China.

Renegotiations From the outset, Moreno made no secret of his desire to revisit Ecuador's oil-backed loans (Shullman, 2019, p. 34). Still, Ecuador was hardly out of the financial woods—its 2016 budget deficit was still at 7.67 percent of GDP (International Monetary Fund, 2020a). Moreno had both an electoral mandate and a practical necessity to turn around the country's fiscal situation, but further short-term cash infusions would be necessary to do so. In October 2017, he agreed to borrow \$200 million more from China Development Bank at 6.5 percent interest over eight years. Of this, \$120 million was payable after two years' grace, and the remainder after three. These terms are not exactly concessional, but they did provide a two- to three-year window for Ecuador to get its house in order. Perhaps more tellingly, they were more favorable than CDB's most previous non-oil-backed loan, which was made at 7.25 percent interest loan due over eight years

(D. Castro Salgado, 2019, p. 305). China may have been regaining some confidence in Ecuador's institutional strength.

The fact that the loans were not backed by oil also gave rise to another major shift in Ecuador's public finances. In November 2017, after a four-year absence, Ecuador made its first sale of oil on the short-term spot market, which typically provides higher prices than oil bought under long-term contract. This had been impossible with all oil production locked up by pre-sales and oil-backed loans, but greater fiscal restraint under the new administration was beginning to have a positive multiplier effect on government revenues. A week later, Minister of Hydrocarbons Carlos Pérez was sent to Beijing to renegotiate purchase orders with an eye to free up more oil output (Argus Media, 2017).

This effort met with only limited success. China is at its toughest where resource security is concerned, and with almost all of its oil already mortgaged, Ecuador had little leverage over Beijing.⁴⁵ The existence of the arrangement with Thailand's PTT, though, may have helped Ecuador's case. In May 2018, it was announced that PTT and the concerned Chinese oil firms agreed to readjust the pricing and timing of planned oil shipments to Ecuador's benefit. The overall level of debt, however, was not changed (Agencia de Regulación y Control Hidrocarburífero, 2018a). The theory held that restructuring short of forgiveness is the a tougher treatment of distressed debt than writing it off but is still more favorable than non-renegotiation. China gave some ground due to some combination of the role of PTT—an admittedly much smaller debtholder—and fear of the impact on Ecuadorian crude production that tougher treatment and a prolonged crisis could have.

Per the announced initial projections, the restructuring would reduce Ecuador's budgetary shortfall by \$3.5 billion, but this was spread across many years and only partially addressed

⁴⁵Conversation with China-Latin America specialist, Washington, DC, July 2018.

the immediate crunch. As the government cracked down on corruption, it attempted to find more bidders on new oil contracts. In October 2018, six contracts worth a total of \$1.6 billion in investment in capacity were signed by firms from Argentina, Ecuador, Mexico, the United States, and Venezuela (González, 2018). These mostly private firms were regaining confidence in Ecuador's business climate as the memory of Correa's nationalization of equity contracts began to recede. In that same month, \$210 million in loans for budgetary support came from the Latin American Development Bank (CAF) (Corporación Andina de Fomento, 2020). In December 2018, China Exim committed \$69.3 million for further earthquake reconstruction. Being humanitarian, the loan charged only 2 percent interest over twenty years (D. Castro Salgado, 2019, p. 305).

The IMF Despite all of the above, Ecuador's budget remained in the red. Ecuador wanted greater concessions on debt to China, \$6.5 billion of which was still on the official books at the end of 2018, but found Beijing unwilling to move any further. In need of leverage, Moreno began to publicly consider going to the IMF for bailout assistance if China did not come through (Valencia and Cohen, 2018). Funding from the IMF would strengthen Ecuador's hand in demanding renegotiation of the oil loans, although this "threat" may have also been a way for Moreno to deflect blame for impending IMF conditions on China. In any event, China (partially) obliged only two days later with \$969 million in new loans. Again, these took some immediate pressure off of Ecuador such that repayment of the oil loans would be less tenuous. Toward this end, the loans were on more favorable terms than the oil loans: \$900 million was at 6.5 percent interest, and \$69 million slated for earthquake relief was at 2 percent interest. China also committed \$30 million in grants toward Ecuador's defense budget—not much in the grand scheme of things, but probably well appreciated, and as much as can be expected from non-reimbursable expenditures

(Pipoli, [2018](#)).

The following month, however, saw a return to bad news. First came the release of the aforementioned audit report finding that billions had gone missing. Then, Ecuador managed to raise \$1 billion on the bond markets—a difficult proposition, given its history of bond defaults—but at 10.75 percent interest (Maidenberg and Dube, [2019](#)).

Clearly in need of better options, Ecuador in February 2019 made good on the threat to go to the IMF, which itself came through with a \$4.2 billion line of credit at a much more favorable 3 percent interest due over 10 years. This also came with \$6 billion in credits from other organizations including the Inter-American Development Bank, World Bank, and Latin American Development Bank. This was enough to plug Ecuador's fiscal hole and begin to actually reverse the accumulation of debt to China. However, there were strings attached. The Fund attached conditions including layoffs at state-owned enterprises, greater central bank independence—a reversal of one of Correa's institutional changes—and tax “rationalization”—again, indirectly countering Correa's scrapping of safeguards against deficit spending (International Monetary Fund, [2019b](#); Valencia and Cohen, [2019](#)). Most notably, the Fund asked Ecuador to do away with its decades-old subsidies on fuel, which were estimated to cost 3 percent of GDP (International Monetary Fund, [2019a](#)). This last point led to major demonstrations, including by politically important constituencies such as teamsters and indigenous groups. Stuck between international bureaucrats and his own citizens, Moreno sided with his political base and withdrew the plan to cut fuel subsidies from the National Assembly (Brown, [2019](#); Ecuavisa, [2019](#); Valencia and Kinosian, [2019](#)). The IMF essentially gave way, so long as Ecuador continued to abide by the other conditions and negotiate a new tax plan (Campos, [2019](#); International Monetary Fund, [2019c](#)). This is clear evidence of a mechanism linking governance quality to financial stringency via access

to multiple sources of financing. The Mahuad government in 2000 had exclusively relied on the IMF and private bondholders and had been forced to accede to most of their demands; Correa had relied exclusively on China and mortgaged virtually all of the country's oil. Moreno charted a middle path. He strengthened institutional safeguards against corruption, serial deficit spending, and other mismanagement enough for the IMF and others to make a comeback, but without totally alienating China. So, neither the IMF nor China were at their most stringent—the Fund decided to live with Ecuador's fuel subsidies, and China renegotiated oil pricing and extended some more concessional credits.

6.2.1.5 Conclusions: Ecuador

Ecuador's institutions have seen substantial variation over time with correspondingly dramatic implications for Chinese (and other) development finance. Institutional changes were linked to financial outcomes via two mechanisms—lender demand for greater protection, and borrower leverage (or lack thereof) to resist these demands via access to other financing. These two factors ebbed and flowed over the course of Ecuador's tumultuous decade. The post-crisis settlement of 2000 was made largely on the terms of the IMF and the mostly Western private banks which held much of Ecuador's debt, and Ecuador's political economy of the early 2000s was characterized by strong legal investor protections. Rafael Correa's 2007 election changed all this as he forced renegotiation of arrangements across much of society, including the foreign-invested financial and energy sectors. The expulsion of the Bretton Woods institutions and jitters among most private firms opened space for firms with greater state backing to manage what was becoming a highly risky market. These included Brazilian and Russian organizations, but Chinese interests were by a large margin the majority. However, Correa's gamble on major infrastructure investment was uncertain enough for China to demand extra protection; having directly or indirectly lost access to most fund-

ing, Correa had little choice to accept collateralization of oil, even as he compared requests for central bank asset collateralization to negotiating with the IMF.

Correa's gamble was ultimately unsuccessful, and a second major source of variation in time came with the election of Lenín Moreno in 2017. The non-competitive bids inherent to China's tied loan model were effective at preserving Chinese firms' balance sheets, but unfortunately might have been too effective for their own good, enabling firms to engage in corruption and corner-cutting in construction without any ramifications. Moreno began to take serious steps toward dealing with corruption and quality control and more limited steps toward altering some of Correa's institutional changes. This was enough to regain funding from the IMF and associated international development banks, but also to restructure some Chinese oil-backed loans.

Not all cases have as much variation over time as Ecuador's; nor do most involve as much investor risk. The Peruvian case contains some moderate variation over time but mostly serves to illustrate how China approaches quieter markets with less risk and more international investor interest. To be specific, China mostly used equity investments, with the exceptions of a few projects of elevated risk in which most other international actors were not interested. We turn next to Ecuador's neighbor to the south.

6.2.2 Peru

Because Peru's domestic political economy since the 1990s has been subject to less dramatic swings than Ecuador's, I organize this section not by time period but by type of economic activity. Some sectors such as fishing and mining are internationally competitive and have drawn major Chinese equity investment on a scale not seen in Ecuador. Much of Peru's infrastructure sector is also subject to competitive international bidding, but certain

types of projects are less lucrative and higher-risk and have drawn Chinese tied loan packages more typical of the Ecuadorian case. This between-sector and even between-project variation is a within-country microcosm of the much larger variation observed between countries. I begin with a section on Peru's background, with a particular focus on the early 1990s, when the policies of President Alberto Fujimori laid the groundwork for what has become Peru's long-term political economy to this day. This period also saw China's first major entry into the Peruvian market. I then do the bulk of the analysis of economic activity broken down by sector, namely 1) fishmeal; 2) mining; 3) banking; and 4) infrastructure.

6.2.2.1 Background: The “Fujishock” and Early Chinese Investments

Like Ecuador's, Peru's 20th century was at times tumultuous, marked by high inequality, social unrest, economic instability, and military interventions in politics. The 1980s were a particularly difficult time as Peru battled the effects of that decade's Latin American debt crisis—Peru defaulted on sovereign debt in 1980 and 1984—as well as the Maoist Shining Path insurgency. The early tenure of President Alberto Fujimori (1990-2000) was a crucial turning point in Peru's history. Fujimori managed to bring the Shining Path under control and pursued a series of policies known as the “Fujishock” characterized by a general emphasis on liberal marketization and fiscal tightening. As the initial recessionary impact of budget cuts faded, international markets began to regain confidence in Peru.

Liberalization involved privatizing many state-owned assets, including in Peru's significant mining sector. Firms from around the world were interested, and the winner of one privatization bid came from China. In 1992, Beijing-based Shougang—or “Capital Steel,” literally translated—purchased the Marcona iron mine from the Peruvian state. This was a

very early instance of China's deployment of state capital to supply its growing industrial needs. As one press report of the time put it:

The growth of the Chinese economy is so rapid, and its industrial base so underdeveloped, that buying steel mills, iron mines and other Western businesses is far easier than waiting until such industries can be developed within China, say investment bankers and executives of the Capital Steel Corporation of Beijing, which concluded the deal here. (Nash, 1992)

There is also good reason to believe that state credit helped guide Shougang in a direction amenable to the Chinese government's interests. Shougang's chairman had served with Chairman Deng Xiaoping during the Chinese Civil War, and the firm had been early participant in the profit responsibility scheme which had begun to allow state-owned firms to manage and reinvest their own profits during the early 1980s reform period. This was a generally well-connected firm with personal and financial connections to elites in Beijing and as such was in a position to be guided to meet state priorities (González-Vicente, 2013, pp. 50–51). The state's deep pockets helped Shougang beat out a Chilean-Japanese-Mexican group for the bid. González-Vicente (2013) writes that:

The bidding process was opaque, and in November 1992, after both parties had already agreed to Shougang's total offer of US\$311.8 million, the Peruvian government decided to bail out Hierro Peru, assuming debts for a total of S 800 million (Peruvian nuevo soles), equivalent to US\$493 million at the time. (51)

This follows the findings of Landry (2019) and Chapter 5 of this dissertation that Chinese equity investment has an indeterminate and variable relationship with political risk, as opposed to a more predictable risk aversion on the part of most private investors. Chinese investors were in a position to deal with a high degree of project-level debt distress, and had good reason to do so given China's rising need for iron from abroad. González-Vicente's

point also raises questions about whether the Shougang deal should be treated as a pure equity investment. The Peruvian government took on a great deal of debt, albeit debt that had previously belonged to a state-owned enterprise and was debatably separate from the liabilities of the government proper. This debt was not issued by China, but it nevertheless placed risk on the Peruvian government's shoulders, and not on China's. The Peruvian institutional environment was changing such that equity investors were beginning to feel more comfortable there, but this change was still uncertain enough that Shougang wanted extra protection from financial downside risk.

A second major Chinese investment came in 1993, this time in the oil and gas sector. In that year, the IMF extended credit to Peru, the first such loan since Peru's 1984 default and slide into hyperinflation (Rossini and Santos, 2015). Peru's macroeconomic situation was improving, and later in 1993, the Peruvian government issued a new Organic Law of Hydrocarbons (*Ley Orgánica de Hidrocarburos*) establishing a new legal framework for the oil and gas sector. The law provided for two types of contracts. Under license contracts (*contratos de licencia*), Petroperu (the national energy company) grants investors licenses to exploit and gain the profits from oil and/or gas deposits, although Petroperu remains the ultimate owner. Under service contracts (*contratos de servicios*), on the other hand, firms do not own licenses to deposits but are instead paid to work on wells as contractors (Government of Peru, 1993). Readers will note that this is essentially the opposite of the change made by the Rafael Correa administration in Ecuador. Correa commuted all "participation contracts"—leaseholds similar to Peru's license contracts—to service contracts, in the process reducing global energy firms' interest in Ecuador. The Fujimori administration's provision of a more solid legal basis for equity-like investment had the opposite effect, attracting interest from many multinationals which had shied away from Peru during

the tumultuous 1980s. Among these was PetroChina (CNPC), which in 1993 bought the rights to operate the established oilfields of Blocks 6 and 7, near the border with Ecuador (China National Petroleum Corporation, 2020). These deals were relatively small, costing CNPC \$63 million between the two oilfields, but were nevertheless significant as the Chinese oil industry's first ever investment in Latin America. Like their colleagues in iron mining, China's oil majors were expanding overseas to gain greater experience and know-how (Kong, 2010, pp. 81–82). Peru's trend toward increasing legal protection for investors provided an opportunity to do so in a region where China had no previous footprint.

While the Shougang deal was important to Peru's iron industry, both iron and oil are secondary to copper in Peru, and CNPC's \$63 million in oil investments did not make it a leading player in the country. In any event, China was a much smaller player in the global economy in the early 1990s. This period was important for Sino-Peruvian relations not just for these two investments, then, but also in that established what was to become a stable set of policies under which foreign firms, Chinese included, must operate.⁴⁶ The liberal arrangement established by Fujimori remains largely in place today. This affects Peru's engagement with China both on a more domestic level via the legal structure in which foreign firms invest and on an international level by successfully attracting capital from many sources.

Domestically speaking, the Fujimori period left Peru with a system bifurcated between a very strong, stable bureaucracy and a relatively unstable elected leadership. Heirs to Fujimori's liberal adjustment policies and engagement with the IMF, the bureaucracy tends to favor market-based approaches and does not much vary its activities regardless of who occupies the Presidency or Congress. The elected officials, on the other hand, are only incon-

⁴⁶Two Peruvian economists independently brought up the Fujishock as the basis for Sino-Peruvian relations today. Interviews, Lima, September–October 2019.

sistently concerned with pro-market policies and rarely at all with stable adherence of any governance model. Fujimori himself was a controversial figure—after Peru's turnaround of the early 1990s, he was in the latter half of the decade exiled on corruption and human rights charges. He was later convicted of ordering a break-in of a government official's apartment; embezzlement; and human rights violations including murder dating to the fight against the Shining Path (BBC News, 2007b, 2009; Sullivan, 2010). Peru's post-Fujimori history has been less extreme, but the duality between a diligent, at times rigid bureaucracy; and volatile, often corrupt elected politics has endured.⁴⁷ Of Peru's six post-Fujimori presidents, three have been arrested on corruption charges, largely connected to the Odebrecht corruption scandal which rocked many Latin American governments (Burnson, 2019; Fowkes, 2019; Taj, 2019b). A fourth committed suicide with police at the door (Quigley and Guzman, 2019). The current president, himself a one-term caretaker who took office after his predecessor's implication in the scandal, in October 2019 dissolved Congress and called for new elections after several party leaders were implicated in the Odebrecht scandal (BBC News, 2019).

The degree of political risk posed by Peru's elected executive and legislative branches is thus much higher than that posed by the civil service. So, China engages with these two parts of the Peruvian government on very different terms, and the relative weight of the bureaucrats and politicians can vary by project. For most sectors of interest to foreign investors—mining, energy, and most public works fall into this category—the Peruvian state bureaucracy creates rules for market competition but only plans projects where there are clear social benefits but private firms are not interested.⁴⁸ For most major projects,

⁴⁷One Peruvian economist interviewed for this dissertation began by saying that Peru is “very stable,” and a few minutes later said that Peru was “a little unstable.” He clarified that he meant that the bureaucracy in the first instance and Congress in the second.

⁴⁸Interview with Peruvian Ministry of Economy and Finance official, Lima, September 2019.

the bureaucracy requires a battery of assessments of concerns such as financial sustainability and environmental and social impacts. These typically involve the input of many stakeholders; relations with local communities for mining projects, for example, are often particularly fraught. Sanborn and Yong (2014) write that the amount of paperwork involved in the Peruvian system and the need to engage with many stakeholders have been off-putting to Chinese investors, especially when they first arrived. Chinese firms are used to an environment in which many laws and regulations are not strictly followed and the immediate views of the central leadership are generally more important. This suited them well in Ecuador, at least under Correa, but much less so with the Peruvian bureaucracy. Furthermore, as established in Chapters 3 and 5, China uses tied loan contracts as a form of insurance in environments with inconsistent rule of law. This is often not well-received by the bureaucracy, which as a legacy of the disaster of the 1980s and subsequent close connections with fiscally conservative IMF and World Bank counterparts are deeply skeptical of debt.⁴⁹ As one Peruvian economist put it to me, “In Peru, we believe that the loan is an inefficient mechanism.”⁵⁰ Then, when the government does decide to borrow, it usually holds project-level competitive bids precluding tied financing packages. (Contrast this with Ecuadorian President Correa’s decision to explicitly allow tied packages.) Peru’s liberal apparatus thus steers China (and others) toward equity investments, which given the stable legal environment surrounding these deals is generally acceptable to China. However, there are pockets of the Peruvian political economy where the politicians outpace the bureaucrats. Some patronage or prestige projects might be promoted by leaders or legislators hoping to boost their electoral prospects; in one instance, a series of trans-South American navigational projects was also explicitly put forth as an area of Sino-Peruvian cooperation,

⁴⁹“We learned through disaster.” Interview with Peruvian economist, Lima, September 2019.

⁵⁰Original Spanish: *En Perú, creemos que el préstamo es un mecanismo ineficiente.* Interview, Lima, October 2019.

without much input from Lima's technocrats. In these exceptional cases, China has made inroads into Peru using its more familiar debt-centric model.

The distinction between elected officials and technocrats also has an international component. The Peruvian scholars Novak Talavera and Namihas (2016) write that:

Definitively, Peru's decision to engage in an open and diversified foreign and commercial policy toward the world has been highly positive for the country in that it allows the country to obtain greater benefits and lowers the risks of depending on one partner or bloc. Such is our relationship with China. However, it is also necessary to recognize our differences (democracy and human rights) and maintain a relationship that does not distance ourselves from our natural partners, like the United States and Europe.⁵¹ (57)

No government would want to over-rely on any one outside power, and Peru is no exception. Peru's success in courting the engagement of many outside groups—not just China, but also multilateral financial institutions, the United States, Europe, Japan, other Latin American countries, and global bond markets—is largely the result of its “open and diversified foreign and commercial policy.” In keeping with the Bretton Woods institutions' preference for international openness, the Peruvian bureaucracy enforces competitive and open bidding procedures at the early stages of projects and stable property rights for investors once they have won bids. Novak and Namihas even bring up normative concerns regarding which provide common ground with other democracies and potentially multilateral organizations. The unstated issue is that Peru's investor protections, stable adherence to law, and even adherence to democratic process is highly uneven across different parts

⁵¹Translation by author from original Spanish: *Definitivamente, la opción tomada por el Perú de tener una política exterior y comercial abierta al mundo y diversificada resulta altamente positiva para el país, en tanto le permite obtener mayores beneficios y reducir los riesgos de depender de un solo socio o bloque. En esta línea se inscribe nuestra relación con la China. Sin embargo, es también preciso reconocer las diferencias (democracia y derechos humanos) y mantener un relacionamiento que no nos distancie de nuestros socios naturales, como lo son Estados Unidos de América y Europa.*

of its political system. The technocrats who engage with international investors fit this description, but many high-ranking politicians do not. Where bureaucrats and the rule of law prevail, Novak and Namihas correctly predict that many outside parties will be interested, and Peru will likely be able to play them against each other to extract a better deal for itself. However, there are occasions when political patronage or behind-the-scenes corruption erodes confidence in the rule of law surrounding individual projects. This was made abundantly clear by the Odebrecht scandal: after Odebrecht was found to have bribed multiple Peruvian heads of state, it was forced to leave the country, and its 'former projects' checkered pasts deterred most other firms from getting involved. China has filled the void for several of them, often using debt-based modalities more typical of its engagement in countries like Ecuador. This type of subnational variation in political risk, including but not limited to the Odebrecht scandal, will form the basis of the rest of this chapter.

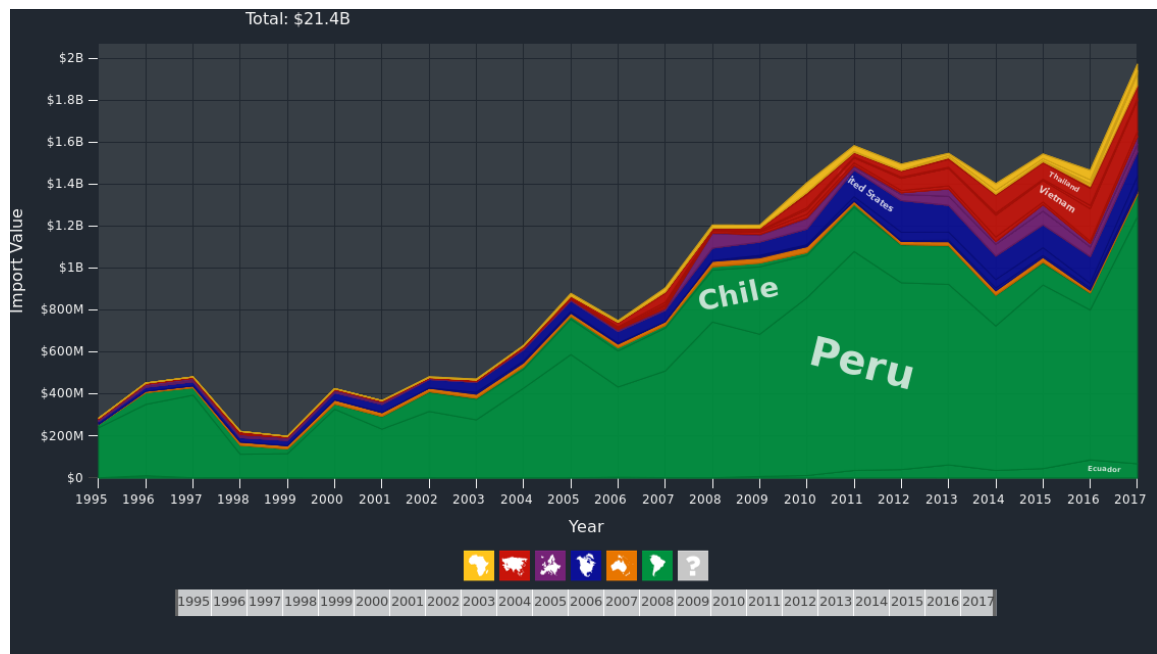
I proceed to analysis of projects as broken down by sector. First is fishmeal, which plays a contributing role in Chinese food security. Chinese investment here was mostly private without any apparent government involvement; this case of strong market logic presents a control case opposite those in which government funding was necessary to push firms in a desired direction. Second, the oil and mining sectors have drawn exclusively equity investments. Third is the banking sector. Reflecting Peru's lower financial risk, China has here made a mix of loans and equity investments on more favorable terms than typically observed of Chinese bank loans to developing countries. Lastly is infrastructure. China has been involved in projects including ports, overland transportation, telecommunications, and electricity generation, but has done so on very different terms based on perceived project-level risk. In some instances, exogenous shocks like the Odebrecht scandal left openings for Beijing to fill, sometimes using different financial terms from the norm in Peru. With

respect to a proposed transcontinental railway, Chinese geostrategic concerns make a rare appearance in South America, leading to a much less market-driven approach on the part of China.

6.2.2.2 Fishmeal

As discussed in the Ecuadorian context in Section 6.2.1.1 of this chapter, China uses imported fishmeal to address the food security concerns of a billion-strong population living on limited arable land. China's 2008 Outline of the Medium- and Long-term Plan for National Food Security established that China did not want to import more than 5 percent of its consumption of staple grains (e.g., rice and wheat) (Central People's Government of the People's Republic of China 【中华人民共和国中央人民政府】 , 2008). This meant using China's limited farmland for crops like rice, which produce large amounts of food on modestly sized plots, and outsourcing more land-intensive crops of secondary importance to trading partners. Animal feed to back the rising Chinese middle class's increasing meat consumption has been highlighted as an area in which China can afford to buy from overseas without compromising its core food security interests. Rich in protein and highly land-intensive, imported soybeans for use as animal feed have drawn significant attention, and for good reason: China bought \$35.6 billion worth of them in 2017 (D. Ma and Adams, 2014; United Nations, 2018). The lion's share of soybeans, however, come of one of three countries—the United States, Brazil, and Argentina—and the politicization of the soy trade during the Sino-US trade war has highlighted China's vulnerabilities here (United Nations, 2018). Ground fish is also rich in protein and allows China to diversify away from reliance on soy. At just over \$2 billion per year, China's fishmeal trade is modest relative to its \$30 billion per year in soybean imports. Figure 6.5 shows that it is also concentrated among a few exporters.

Figure 6.5: Chinese Imports of Fishmeal as Animal Feed, 1995-2017



Graphic generated by *Observatory of Economic Complexity* (Simoes and Hidalgo, [2011](#)).

In every year since 1995, Peru has provided at least 44 percent of China's fishmeal imports. Runner-up Vietnam provided only 6.7 percent as of 2017. China has obvious resource security interests here but has not needed to put forth all that much effort to secure them. At least in the context of rising demand in the 2000s and early 2010s, the Peruvian fishmeal trade was profitable enough to draw Chinese investment from private organizations. In particular, China Fishery Group has purchased numerous assets in Peru. A private family business based in Hong Kong, China Fishery is listed on the Singapore stock exchange, and its management team are mostly Hong Kong nationals or overseas Chinese. It would be difficult to observe direct state support from Beijing to such a firm, but the company does not fit the profile of a mainland Chinese national champion. Nevertheless, beginning in 2006, China Fishery went on an extended shopping spree in Peru. Table 6.6 details the results.

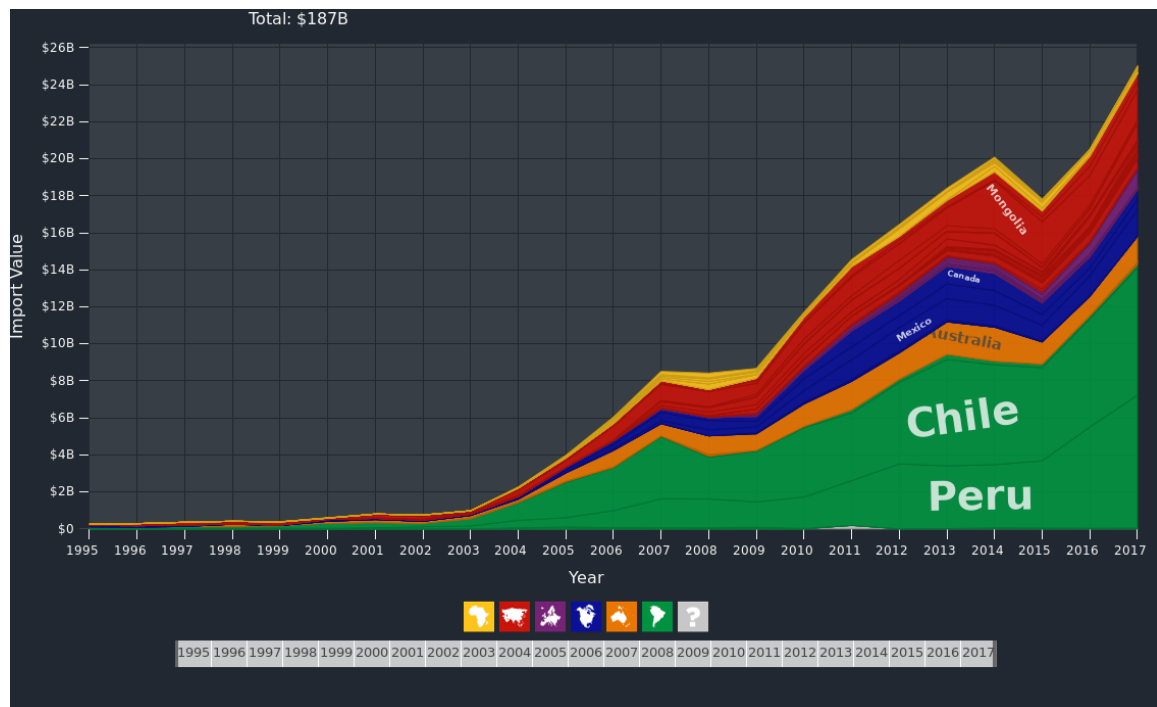
Table 6.6: Investments by China Fishery Group in Peru, 2006-2014

Year	Asset	Amount (mil. USD)	Source
2006	Alexandria Fishing Co.	103	Ellis (2009, p. 159); Dussel Peters (2019)
2006	Pesquería Isla Blanca (fishing fleet)	N/A	Ellis (2009, p. 159)
2007	Pesquería Maru (fishmeal producer)	N/A	Ellis (2009, p. 159)
2007	Pesquería El Pilar (fishmeal producer)	N/A	Ellis (2009, p. 159)
2007	La Candelaria SA and Altoreal SA	11	Dussel Peters (2019)
2007	Chimbote fishmeal plant	18	Ellis (2009, p. 159); Dussel Peters (2019)
2010	Pesquería Alejandría	95	Dussel Peters (2019)
2010	Deep Sea Fishing SAC, Pesquera Islaya SAC, Pesquera Mistral SAC, Epesca Pisco SAC, and Pesquera Pocomo SAC	56	Dussel Peters (2019)
2011	Negocios Rafmar and Consorcio Vollmatch	26	Ellis (2014, p. 38); Dussel Peters (2019)
2013	Copeinca (controlling interest)	809	Ellis (2014, p. 38); Novak Talavera and Namihas (2016, p. 56); Dussel Peters (2019)
2014	Copeinca (100% stake)	556	Dussel Peters (2019)
	Total	1,674	

Not counting several transactions for which no amount is available, China Fishery spent at least \$1.6 billion building up its Peruvian operations. Available information would suggest that this was a more traditionally entrepreneurial venture whose contribution toward Chinese national interests was more incidental than intentional. First, the 2013 purchase of Copeinca—by itself roughly half of the total—was backed by a loan from HSBC, a UK-based bank with its origins in Hong Kong during the British colonial era (Novak Talavera and Namihas, 2016, p. 56). HSBC has better access to the mainland Chinese market than most multinational private banks but remains an essentially private organization and is legally still a foreign entity in China. It seems unlikely that the government in Beijing would channel tax funds through HSBC when it has its own state-owned banks to do so. Second, Singapore-listed China Fishery and its Hong Kong parent, Andes Pacific, filed for bankruptcy in 2016. The bankruptcy was filed in, of all places, New York. American bankruptcy law shielded them from the claims of HSBC, its loan to which was jeopardized by some combination of “political troubles in Russia,” where the firm had also made investments, and declining yields due to El Niño and climate change in the Pacific (White, 2018; Woo, 2016). The Chinese government did not bail them out; instead, the company used legal bankruptcy protections more typical of their home environments of Hong Kong, Singapore, and Peru. As of this writing, China Fishery is still in bankruptcy protection and looking for a buyer: again, not a likely move for a firm with a blank check underwritten by Chinese taxpayers (White, 2018).

The Chinese government is willing to use state funds toward resource security interests, but only in high-risk markets which firms are nervous to enter otherwise. Ecuadorian oil was a high-risk area; Peruvian fishmeal was not perceived as such, although investors may have underestimated non-political risks posed by climate change and declining fish stocks.

Figure 6.6: Chinese Imports of Copper Ore, 1995-2017



Graphic generated by *Observatory of Economic Complexity* (Simoes and Hidalgo, 2011).

Peru's fisheries, though, are of much less importance to its economy than are its minerals.

6.2.2.3 Mineral Extraction: Oil, Gas, and Metals

Peru is a minor producer of iron ore, oil, and gas, and the world's second-largest producer of copper ore (U.S. Geological Survey, 2019). The U.S. Geological Survey (2019) estimates that roughly 10 percent of the world's copper reserves are in Peru. As seen in Figure 6.6, China's trade statistics reflect this fact.

So, it comes as no surprise that China is deeply involved in the Peruvian mining sector, including not just copper but also smaller deposits of iron and hydrocarbons. Table 6.7 lists these investments.

Table 6.7: Chinese Mineral Investments in Peru

Project	Type	Firm	Year	Amount (mil. USD)	Source
Marcona	Iron	Shougang	1992	311.8	González-Vicente (2013, p. 51)
		Shougang	2007	1,500	Dussel Peters (2019)
		Baiyin Nonferrous (51%) and Shougang (49%)	2011	237	Gestión (2011); El Comercio (2014)
		Shougang	2017	150	Dussel Peters (2019)
		Shougang	2018	1,100	Dussel Peters (2019)
Blocks 6 and 7	Oil	CNPC	1993	63	Kong (2010, pp. 81–82)
		CNPC	2003	11	Oil & Gas Journal (2003)
Blocks 1A-B and 8	Oil	CNPC (45%) ⁵²	2003	N/A	Ellis (2009, p. 150); Ellis (2014, p. 30); Sanborn and Chonn Ching (2017a)
Rio Blanco	Copper	Zijin Mining (45%), Tongling Nonferrous (35%), Xiamen C&D (20%)	2007	1,500	Ellis (2009, p. 151); Sanborn and Yong (2014)
Toromocho	Copper	Chinalco	2007	792	Ellis (2009, p. 151)

Continued on next page

⁵²CNPC purchased a 45 percent stake in the Peruvian division of Argentina's PlusPetrol, which is the actual owner of the Blocks. See Ellis (2009, p. 150); China National Petroleum Corporation (2020).

Table 6.7: Chinese Mineral Investments in Peru

Project	Type	Firm	Year	Amount (mil. USD)	Source
		Chinalco	2008	2,150	Ellis (2009, p. 151); Sanborn and Yong (2014); Ellis (2014, pp. 20–21)
		Chinalco	2013	1,320	Ellis (2014, p. 21); T. Daly (2018a); American Enterprise Institute (2019)
		Chinalco	2013	385	Chinalco Mining Corporation International (2014); Dussel Peters (2019)
Galeno	Copper	Minmetals (60%) and Jiangxi Copper (40%)	2007	446	C. Chan (2008); Ellis (2009, p. 151)
		Minmetals and Jiangxi Copper	2008	2,500	Sanborn and Yong (2014); Ellis (2014, p. 20)
Mina Justa	Copper	CST Mining	2010	233 ⁵³	L. Hill (2010)
Pampa de Pongo	Iron	Nanjinzhaio	2010	2,500	Sanborn and Yong (2014); Dussel Peters (2019)
Blocks 10, 57, and 58	Oil and Gas	CNPC ⁵⁴	2013	2,600	Ellis (2014, p. 31); Novak Talavera and Namihas (2016, p. 56)
Las Bambas	Copper	Minmetals (63%), Guoxin (22%), and CITIC (15%)	2014	6,990	American Enterprise Institute (2019)

⁵³ This was actually Canadian \$244.5 million, which at market rates on the day of the cited article's publication was equivalent to US \$233 million. Exchange rate data per Oanda (2020).

⁵⁴ China has 100 percent stakes in Blocks 10 and 58 and a 46.2 in Block 57, the majority of which belongs to Repsol. See Slav (2017).

Table 6.7 comprehensively lists all Chinese investments in mineral production, although the amounts should be taken with a grain of salt. Most investments involve smaller amounts up front to buy the concession and much larger planned expenditures over time. Plans for longer-term expenditures often fluctuate significantly over time as investors negotiate with host governments and subcontractors (Ellis, 2014). The above figures are best estimates as of this writing but in some cases may not be final. With that caveat in mind, there remains one overwhelming trend: China only used equity investment to enter Peru's mineral sector. This reflects China's latecomer status in global development finance, which Chapter 3 posited as a driver of China's need to use strict risk management tools. By the time China emerged as a global economic power, many of the safest markets were already fairly saturated, leaving China with the toughest ones. Peru falls more into the former category, meaning that China competes with a range of multinationals there. Generally speaking, Peru is thus in the position to demand more favorable deals, which given many Peruvian officials' aforementioned aversion to borrowing means asking for equity investment and leaving any debt with the investing company. The contrast with debt-heavy Ecuador is stark.

These equity investments, though, are not a monolith. In some cases, Chinese firms have bought out other foreign firms; in others, projects are started new or bought from the host government. This distinction tells us something about the degree of extant market competition, which in turn is a product of Peru's domestic institutional framework. In most instances, China has bought mines from other firms, as opposed to buying concessions from the Peruvian government and/or opening new mines. This reflects Peru's institutional framework: a strong reputation among international investors has attracted many major multinational firms to Peru, meaning its market was already fairly crowded by the

time China emerged a major player in global mineral extraction. This was true for two oil and gas deals, and several metals deals. To start, the 2003 purchase of oil Blocks 1A-B and 8 involved taking a 45 percent stake in the Peruvian affiliate of Argentinian firm PlusPetrol (Ellis, 2009, p. 150; China National Petroleum Corporation, 2020). Something similar happened in 2013, when CNPC purchased the Peruvian operations of Brazilian national oil company Petrobras.⁵⁵ CNPC bought 100 percent of two of the three blocks purchased from Petrobras, but only 46.2 percent of a third, which was shared with Spain's Repsol (Slav, 2017). Here, China was trusting Peruvian state institutions to regulate and adjudicate ownership contracts. In four other cases, China was effectively trusting third-party institutions as well. The Rio Blanco mine was acquired by purchasing UK-based Monterrico Metals, which was listed on the London Stock Exchange (Reuters, 2007d). Chinalco acquired the Toromocho mine by buying a Canadian firm listed in Toronto and Lima (Reuters, 2007c). Minmetals and Jiangxi Copper bought out a privately held Canadian firm to gain ownership of the Galeno project (Reuters, 2007b; SEDAR, 2008). Lastly, Nanjinzhaoh bought the Pampa de Pongo iron concession from Canada's Cardero Resource Corporation (Cardero Resource Corp., 2009). This fourth instance is unique in that Cardero had other assets and the Chinese firm bought only the Peruvian subdivision, not the entire company.

One way of looking at the obvious pattern above is that Chinese investors trusted British and Canadian institutions to regulate major transactions. This is accurate, but only pertains to the immediate purchase transactions and not to actual operations in Peru once the companies had been bought out and taken private. China would then still have to trust Peru's institutions. The real message was that Peru's institutions were strong enough for compa-

⁵⁵This deal was already being discussed before Petrobras' corruption scandal broke in 2014. While it might appear that China was moving into the void left by the Lava Jato scandal—and this has happened for other formerly Brazilian-backed projects—the sale of Petrobras' Peruvian assets might have happened anyway.

nies with operations predominantly based there to meet the numerous hurdles to listing on major global exchanges like London and Toronto. This, in turn, means that to have a chance at acquiring the relevant mining projects, China had to work within the constraints of the target companies being listed on the stock market, which in turn meant having to do relatively transparent equity deals. Because Peruvian mining had strong access to capital from third countries, Chinese firms were forced to take equity stakes and hold for themselves any pertinent debt financing, a desirable outcome from Peru's perspective.

There were two exceptional cases. First was China's first mining investment in Peru, the 1993 purchase of the Marcona iron mine by Shougang. Shougang bought the Marcona iron mine directly from the Peruvian state.⁵⁶ This arrangement was a product of the politics of the time—the Fujimori government was in the process of privatizing state assets. These assets could only be sold off once. By the 2000s, China's demand for minerals had grown immensely, leading to a greater interest in investment abroad, but so had most international investors' interest in a now-stable Peru. Most subsequent deals, then, saw China buy from these firms.

A second exception was the mammoth (almost \$7 billion) Las Bambas copper mining deal. This had originally belonged to global commodities giant Glencore but was purchased by a Chinese consortium on less-than-arms-length terms. Swiss-headquartered Glencore was planning to buy out its major rival Xstrata, raising antitrust concerns. These being global firms, they needed approval from the regulators of all major markets, China included. As one report at the time put it, "Glencore had to sell the Las Bambas project or other assets by September 2014 in order to win China's approval for its takeover of miner Xstrata last year, as Beijing feared the merged group would hold too much sway over global copper supply"

⁵⁶More specifically, the seller was Hierro Perú, a state-owned firm.

(Paul, 2014). Glencore acceded to Beijing's request.⁵⁷ As in the previous cases, equity was the natural mode of entry to buy an existing project from another firm, but the surrounding circumstances were quite different. In this case, China was able to use political means to outdo market competition.

6.2.2.4 Banking

Chinese banks are also involved in the Peruvian financial sector. They have used a mix of equity investments and loans to enter, but where loans are used, they are typically less tied to specific projects than in Ecuador (or most other places). Table 6.8 lists these loans and investments.

Of the four loans listed in Table 6.8, only one might have been tied. Little information is available on the 2011 loan for electronic infrastructure, and we cannot rule out the possibility that it came with the stipulation that a Chinese contractor do the work. The other three, however, were more open-ended. In a rare direct deal with a foreign entity, Chinese trade insurance group Sinosure provided COFIDE, Peru's national development bank, with \$200 million for trade finance. This would obviously help Chinese exporters but was not connected to any particular project or favored firm. So, this would not directly feed China's tendency to grant loans to firms based on political connections. Nor would it carry the risk reduction measures of avoiding foreign bank accounts; to the contrary, it lent directly to a foreign government institution. Another \$150 million for trade and investment promotion went to Banco de Crédito del Perú, the nation's largest private bank. Clearly, decision-makers in China had many fewer qualms about trusting Peruvian banks to repay than they did in Ecuador.

⁵⁷The original deal was that Glencore sell the mine, but not to any particular buyer. A Chinese consortium later won the bid. See Ferreira-Marques (2013); Ellis (2014, p. 21); and Sanborn and Chonn Ching (2017a).

Table 6.8: Chinese Loans and Investments in the Peruvian Financial Sector, 2009-2018

Chinese bank	Peruvian bank	Year	Amount (mil. USD)	Type	Purpose
CDB	COFIDE	2009	50	Loan	Unknown (untied)
ICBC	ICBC Peru	2010	50	Equity	Opening Peruvian branch
CDB	BBVA	2011	50	Loan	Electronic infrastructure
Bank of China	Interbank	2012	30	N/A	“China desk” for Chinese investors in Peru
CDB	Banco de Crédito del Perú	2012	150	Loan	Trade and investment promotion
China Construction Bank	N/A	2013	31	Equity	N/A
Sinosure	COFIDE	2016	200	Loan	Trade finance
Fosun	La Positiva Vida Seguros	2018	211	Equity	Insurance

Sources: Agencia Peruana de Noticias (2011), Asia Pulse (2011), Corporación Financiera de Desarrollo (2016), Dowling (2016), Dreher, Fuchs, Parks, et al. (2018), Dussel Peters (2019), Ellis (2014), and Sanborn and Chonn Ching (2017b).

Chinese banks were also willing to make equity investments in Peru. Novak Talavera and Namihas (2016, p. 56) write that only 35 percent of the Peruvian economy receives any kind of funding from the financial sector, presenting a serious constraint to growth. Foreign bank loans for a fixed amount can somewhat address this shortfall, but making an actual equity bet creates a framework for more credit to flow through the economy indefinitely. Creutzfeldt (2016, pp. 607–608) writes that all twelve of ICBC's first loans in Peru went to non-Chinese firms. A commercial bank, ICBC is there to earn profits, not to replicate Exim and CDB's functions of assisting Chinese firms. Hong Kong-based private conglomerate Fosun has also put \$211 million into the Peruvian insurance industry. These firms are entering Peru of their own accord, meaning that the Chinese state can save its resources for efforts that are important to national interests but less lucrative.

6.2.2.5 Infrastructure

China has been much less involved in Peru's infrastructure than in its mining sector. Indeed, China's relative dearth of infrastructure deals in Peru is relatively unusual given China's strength in this area. The underlying reason is Peru's institutional framework, which both favors competitive bids and draws many competitors. I begin with a few exceptional cases where Chinese organizations have been involved either as lenders or by winning construction bids. These are relatively few, though, and the real story lies in “dogs that didn't bark”—in this case, a major transcontinental overland corridor which resembled Chinese-built mega-projects in higher-risk environments but was ultimately nixed in the planning stages by the Peruvian government. I conclude with how Chinese firms did manage to remain involved in Peruvian infrastructure—mostly through public-private partnerships and equity investments, which are favored by the Peruvian government. These include some more leveraged investments where the departure of Brazilian and American firms left a

higher-risk void in need of filling.

Peru's procurement laws for development contracts are fairly strict and do not leave much room for tied packages. In one case, China did actually issue a loan to Peru, but as part of a mostly non-Chinese project. The expansion of Lima's metro, a major undertaking projected to eventually cost a total of \$5.66 billion, was initially supported by \$750 million from the Inter-American Development Bank (IDB). Of this \$750 million, \$50 million came from a special IDB fund contributed by the China Development Bank to support public-private partnerships (PPPs). China was also not a major presence in the construction process: a consortium of Spanish, Italian, and Peruvian interests won the concession to operate the Metro expansion, and the rolling stock was purchased from Italian-based, Japanese-owned Hitachi Rail Italy (Inter-American Development Bank, [2014a,b](#)). The new trains are driverless, meaning that Peru has committed to using Hitachi's leading-edge technology for many years to come (Hitachi Rail Italy, [2016](#)). This is essentially the opposite of the technological "conditionality" embodied in many Chinese loan contracts requiring the use of Chinese equipment—and, by extension, Chinese replacement parts and technicians in years to come. This is a very different kind of loan from what was seen in Ecuador—instead of working bilaterally and maximizing the share of project value going to the Chinese economy, CDB this time worked through a multilateral organization on an open basis. Neither the Peruvian government nor the IDB would often allow otherwise.

Since tied loan packages are difficult to implement, Chinese firms must compete in open bids, meaning going head-to-head against a number of major global construction firms which were well-established in the Peruvian market before China's arrival. This is a difficult task, but they have had a few successes. In 2018, China Railway (70 percent) and China Railway 20th (30 percent) won a \$375 million contract to build a highway between

Huánuco and Huallanca, in the Andean highlands (China Railway Construction Corporation, 2018). A minority of the project was backed by the Inter-American Development Bank, with the rest coming from the Peruvian government (Inter-American Development Bank, 2016). In that same year, a consortium of Gezhouba (80 percent) and the Peruvian firm EIVI (20 percent) outbid twelve others to win a \$131 million⁵⁸ contract to build another highway between Oyón and Ambo, not far from the first project. This project came out of the Peruvian government budget (Ahora, 2018, 2019).

Two highway projects are a relatively modest contribution compared to what Chinese firms were doing in the smaller market of Ecuador. One area in which China has gained a more significant market share is in telecommunications. In 2009, the United States' Nextel used Huawei equipment for its 3G network in Peru (NII Holdings, 2011). In 2011, Vietnam's Viettel (locally known as Bitel) set up 2G and 3G networks in Peru using ZTE equipment (Comms Update, 2012). ZTE hardware was also used for a 4G network built by Velatel (Marketwire, 2011). This trend has accelerated for the fifth generation of wireless technology: of Peru's four largest carriers, two are opting to use Huawei equipment for their 5G networks, and a third (Bitel) stayed with ZTE (Comms Update, 2019; Karlosperu, 2019). Because these networks are built by private firms, the source of funding is less likely to be the Chinese state, although ZTE's 4G deal was reportedly 85 percent financed by the company⁵⁹ (Marketwire, 2011). China is a genuine market leader in lower-cost telecommunications technology and in a fast-moving sector faced less entrenched competition than in other infrastructure sectors.

The above projects have gone relatively smoothly, although there is one exception that

⁵⁸444 million soles. Conversion to dollars at November 28, 2018 (date of press article) per Oanda (2020).

⁵⁹The article cited states that "ZTE has agreed to finance 85% of the approximately \$41 million total projected cost," but leaves it open as to whether this is the company's own money or a loan from elsewhere. Loans from the Export-Import Bank of China routinely cover 85 percent of project cost.

proves the rule. A drainage project in the Amazon basin city of Iquitos has displayed some of the symptoms of flawed incentives in Chinese development finance seen more often in, for example, the Ecuadorian hydroelectric sector. This reflects a weaker institutional environment in Iquitos than in the national government. The Iquitos project began with a \$58 million loan from the Japan International Cooperation Agency (JICA) in 2008, and China International Water & Electric (CWE) was chosen to build sewers for a city that mostly lacked them (Global Construction Review, 2018). The \$125 million contract was subject to a number of cost overruns, and actual expenditures reached \$220 million. Despite this, subcontractors at one point went on strike claiming that the company had not paid them (Ellis, 2014, pp. 66–67, 162). Most parts of the sewer system never actually worked. Prosecutors later charged the governor of Loreto, the department in which Iquitos is located, and CWE officials with graft. The governor was also under investigation for several other corruption schemes and later served jail time (Carbajal, 2019). CWE was disbarred by JICA and is currently being sued by the Peruvian government (Global Construction Review, 2018). While not encouraging, this was a relatively isolated event in the Peruvian context. CWE was expelled from two hydroelectric projects in Ecuador alone, not to speak of misconduct by other firms. This was an example of subnational variation in institutional strength: the governor apparently had an extensive track record of corruption, opening the door to bad behavior far from the prying eyes of the Lima bureaucracy. It may also reflect Peru's dichotomy between legalistic civil servants and unscrupulous elected officials, as the governor played a larger role in this project than elected officials typically do in most instances.

In one very notable instance, China did attempt to reach out through Peru's elected officials at the national level. The Bi-Oceanic Corridor was an enormously ambitious initiative to

link Peru's Pacific coast to the Brazilian Atlantic. This was similar to the proposed corridor from Manta, Ecuador to the Brazilian border, but received more serious consideration in Peru before ultimately being scrapped as well. The Corridor provides an excellent example of why the debt-heavy, non-competitive model favored by China in many higher-risk markets struggled to succeed in Peru, despite Beijing's best efforts.

The idea of better connectivity across the imposing barrier of the Amazon Basin had existed for centuries, and some progress had been made in 2006 and 2007 with the construction of two east-west highways connecting Peru's coast to the Brazilian border. The first went through Piura, in the north; the second through Ilo, in the southern-central coastline (Ellis, 2009, p. 154). These highways would have inherently less capacity than a train, though. A Chinese firm, Shandong Luneng, had in 2006 attempted to build a \$10 billion series of investments including port infrastructure in the far southern city of Tacna and a railway inland to Bolivian mines, but the railway ultimately fell through after the port project was given to an Indian firm (Ellis, 2009, pp. 153–54; K. Gallagher and Porzecanski, 2010). The Peruvian government decided to give the idea a second go, but this time further north. In 2008, President Alan García formally announced the Transcontinental Brazil-Peru Atlantic-Pacific Railway, usually known by its Spanish acronym, FETAB⁶⁰ (Government of Peru, 2008). Unlike the Shandong Luneng-proposed route, this one ran through Piura, in the north, and ran directly into Brazil without passing through Bolivia. This was a favored project of President García, who reportedly referred to it as “the most important public work that is currently being realized in South America” (Ellis, 2009, p. 153).

As happened for Ecuador's highly ambitious hydropower projects, though, finding a financial backer was difficult, and none emerged for years. That formally changed in July 2014,

⁶⁰In Spanish, *Ferrovía Transcontinental “Brasil-Perú” Atlántico-Pacífico*.

when Brazilian President Dilma Rousseff formally invited Chinese involvement in FETAB at a BRICS summit in Brasilia. In November, Peru joined while García's successor, Ollanta Humala, was visiting Beijing for the Asia-Pacific Economic Cooperation (APEC) summit (Novak Talavera and Namihas, 2016, p. 50; Adins, 2016, p. 74). At this point, all relevant parties had formally signed on. A feasibility study began after Chinese Premier Li Keqiang visited Brazil in May 2015 (Niu, 2018, p. 186). Diplomatic summits did not rank among major factors in most of the projects listed above, but this was no ordinary project. First was the sheer scale—China's own early estimates of the total cost (across both Brazil and Peru) would be \$60 billion. This would be enough to warrant some Chinese involvement in that this could be an enormous payday for Chinese firms. This could happen both in the short term with construction and the long term: an article from China's nationalist-leaning *Global Times* following Brazil's invitation of Chinese participation states that "China hopes to export railway technological standards, such as gauge"⁶¹ (Global Times 【环球时报】 , 2014). Continued dependence on China for replacement parts and maintenance of critical infrastructure is an unwritten but very real type of condition attached to development finance (Mattlin and Nojonen, 2015).

This might have been enough to push some Chinese involvement, but there were other commercial and geostrategic drivers as well. Commercially speaking, the railway could shorten the transit time from the soy fields and iron mines of Brazil to Chinese ports (Grey, 2018). This arguably could benefit Chinese resource security by lowering transportation costs, although this would be contingent on rail freight actually costing less than maritime transit. The more immediate value of the project from China's perspective is more geostrategic. According to Chinese scholar Sun Zhang:

⁶¹Translation by author from original Chinese: 中国希望输出铁路技术规格, 如轨宽。

From China's perspective, the Bi-Oceanic Railway's strategic use is greater than its transportation use. From a cost perspective, rail transportation costs roughly twice as much as sea transportation, and the goods that China could use the railway to buy from Brazil would not be worth it. But, from a longer-term strategic perspective, the Bi-Oceanic Railway would help China break America's monopoly on international trade flows via control of the Panama Canal.⁶² (Sun Lichao 【孙丽朝】, 2014)

In other words, even if the railway loses money, it might be worthwhile simply to create an alternative to Panama. Bai Ming, a scholar with a research institute affiliated with China's Ministry of Commerce, explicitly connects this issue to resource security.

"Trade between China and South America can take three routes, including crossing the Caribbean to pass through the Panama Canal and on to the Pacific; from the Strait of Magellan at the southern tip of South America to the Pacific; and across the Atlantic and through the Mediterranean and the Suez Canal before passing through the Indian Ocean," says Bai Ming, Assistant Director of Global Market Research at the Ministry of Commerce's Chinese Academy of International Trade and Economic Cooperation. The second route through the Strait of Magellan comes close to the Antarctic and is quite dangerous; the third route is very far and expensive. So, in the long-term China heavily depends on the Panama Canal.

Data from the Panama Canal show that China is its second-largest user, with 53 million tons of goods moving through the canal either to or from China in 2011. "For China to be a great trading power, for a large quantity of goods to be blocked by another great power is very dangerous, especially since much of what China imports from South America is goods important to fundamental security like energy and food."⁶³ (Sun Lichao 【孙丽朝】, 2014)

⁶² Author's translation from original Chinese: 两洋铁路对于中国来说, 战略作用高于运输作用, 从成本上讲, 铁路运输是海运的两倍左右, 中国从巴西用铁路运输货物并不划算, 但从长远战略布局来看, 两洋铁路将有助于中国打破目前美国控制下的巴拿马运河对国际物流的垄断地位。

⁶³ Author's translation from original Chinese: "中国和南美之间的航运线路共有三条, 包括从加勒比海过巴拿马运河进入太平洋线路、从南美最南端过麦哲伦海峡入太平洋线路, 以及从大西洋经过地中海、苏伊士运河绕印度洋再航行到中国的线路。"商务部国际贸易经济合作研究院国际市场研究部副主任白明表示, 第二条线路麦哲伦海峡距离南极非常近, 航行风险较大; 而第三条线路绕远, 成本较高, 所以长期以来中国严重依赖巴拿马运河的运输。

来自巴拿马运河管理局的数据也显示, 中国是巴拿马运河的第二大使用国, 2011年有5300万吨的货物来源或目的地是中国内地。"中国作为一个贸易大国, 大量的货物运输被另一个大国'卡住', 这是非常有风险的, 尤其是中国从南美进口的很多都是能源、粮食等涉及经济和安全命脉的货

This logic is highly similar to the Eurasian transportation routes discussed in Chapter 7, but instead of the nearby Strait of Malacca, the Bi-Oceanic Corridor is designed to bypass the faraway Panama Canal.⁶⁴ This is of secondary importance from China's perspective, but is nevertheless a major global chokepoint. There is reason to doubt how well this would work from China's perspective. On one hand, the 1977 Torrijos-Carter Treaties returning sovereignty over the canal to Panama did reserve an American right to intervene against any threats to free passage through the canal (*Treaty of Pan. Canal 1977*). In sheer hard power terms, in the event of a Sino-American conflict, China would be unable to stop American forces from blockading a small target so close to the United States. On the other hand, it is doubtful whether China could do much to guard the Pacific terminus of a trans-South American railroad which would, again, be geographically in the United States' home region. Interestingly, Adins (2016, p. 89) writes that "if above all in a symbolic way, China would achieve a logistical alternative to the Panama Canal."⁶⁵ Even if at least some in Beijing recognize the dubious value of bringing goods safely to the Pacific Coast where they will again become vulnerable to American interdiction, there can be an optical or soft power component to the project demonstrating that China can compete with the United States. If this interpretation is correct, China's interest in the project could be as much diplomatic as geostrategic.

Even if China is willing to spend resources, the question remains of whether Peru is. As the central link between Brazil and China, Peru's participation is indispensable. This is where the project fell short. Doubts about economic viability were pervasive among interviewees

物。”白明称。

⁶⁴ Adins (2016, pp. 66–68) and Castro Obando (2018) both explicitly connect the Bi-Oceanic Railway to the Belt and Road.

⁶⁵ Author's translation from original Spanish: ... *si bien sobre todo de manera simbólica, China contaría con una alternativa logística frente al Canal de Panamá.*

in Lima. Two interviewees raised concerns that the railway would slowly sink into the soft jungle floor, leading to a state of “perpetual maintenance,” to borrow the phrasing of one of them.⁶⁶ Before reaching the Amazon Basin, the Andes would also present a major obstacle. Of the project's total \$60 billion budget, \$35 billion was slated for Peru, despite most of the railway's length passing through Brazil's vast interior. This was largely because of the costs of crossing the world's second-highest mountain range (Taj, 2019a). What's more, while Peru would have paid over half the costs, many Peruvians doubted that they would reap many of the benefits. Many interviewees expressed concern that Peru would simply become a pass-through country for Sino-Brazilian trade. Others worried about the environmental and social costs of building through the pristine rainforests of northeastern Peru, not to mention similar concerns in Brazil.⁶⁷ Then there was the issue of financing. Equity investment never appears to have been publicly discussed, but the former Peruvian Ambassador to China said in a post-retirement interview that “China through its banks was offering possibilities for loans”⁶⁸ (Castro Obando, 2018). A Chinese scholar at the Shanghai Institutes of International Studies adds that “if China contributes most of the loans to the project, the model of concession or arrangements of payment must be adapted to attract Chinese investors” (Niu, 2018, p. 186). To compensate for putting tens of billions into a project which was unlikely to turn a profit, Chinese companies would need some extra risk insurance in the form of tied loans.

Hypothesis 3B held that China uses debt to push geostrategic projects in areas of high risk, but is more willing to use equity elsewhere. At the project level, the Bi-Oceanic Corridor was indeed high risk, and China did attempt to use debt there. At the national level, though,

⁶⁶Interviews, Lima, September 2019. See also Adins (2016).

⁶⁷See also Adins (2016).

⁶⁸Author's translation from original Spanish: *China a través de sus bancos estaba ofreciendo posibilidades para préstamos.*

Peru's institutional environment was much less receptive to debt. In 2016, Peru backed out of the project. During a trip to China, President Pedro Pablo Kuczynski told reporters that “without getting confrontational, I told [the Chinese side] that this trans-Amazonic train has very high costs and environmental impacts, and that we would have to look at that carefully”⁶⁹ (Fowkes, 2016). One Peruvian economist interviewed for this project stated that the railway had “died of cost, basically.”⁷⁰ Kuczynski instead proposed a train running north-south along the coast, connecting Lima to a series of smaller cities (Fowkes, 2016). Interviewees unanimously saw this route as more financially sustainable than the trans-Amazonian route to Brazil—the route runs through more populated areas while avoiding the engineering issues of crossing the Andes and Amazon basin—but without any geopolitical significance for China. The price tag was also lower: as of 2019, the government estimated that \$3.26 billion in investment would be necessary. The Peruvian is also seeking bidders for a public-private partnership, as opposed to a loan (Barrow, 2019; Negocios Perú, 2019). China Railway bid for the project but did not get it, and as of this writing the bidding process is still ongoing (Reyes, 2019).

In the meantime, two trans-continental alternatives have emerged. First, a rail route further to the south connecting the Peruvian port of Ilo to Brazil via Bolivia is being discussed, but with a different set of actors. This time, a German-Swiss consortium including Siemens has signed a memorandum of understanding with the government of Bolivia, a landlocked state with a more direct interest in access to the ocean than Brazil or Peru either one. Bolivia has leveraged German interest in its deposits of lithium, an important component for some types of batteries, to maintain their support (Dannemann, 2017; Taj and Nienaber, 2019).

⁶⁹ Author's translation from original Spanish: *...sin entrar en nada confrontacional, les dije que el tren transamazónico [Transoceánico entre Perú y Brasil] podría tener costos muy altos e impactos ambientales, y tendríamos que mirar eso con cuidado.*

⁷⁰ Original Spanish: *muerto de costo, básicamente.*

It remains to be seen whether the project comes to fruition, but it is certainly more viable than the northern route: it avoids the ecological and engineering difficulties of the Amazon Basin, and 66 percent of the planned route actually already exists (Adins, 2016, pp. 75–87). This leaves roughly \$10 billion of work left to do—not a small amount, but still much smaller than the \$60 billion associated with the northern route (Niu, 2018, p. 187).

Second, more along the northern route of the Chinese-backed railway, Peru has renewed interest in the Amazon Waterway (*Hidrovía Amazónica*) project dredging Amazon tributaries leading to an inland port, which is connected to the coast by highway. This project was originally put on ice in 2014 when contracting firm China Communications Construction Company (CCCC) failed to consult local communities as required by law (Sanborn and Chonn Ching, 2017b). In 2017, after the railway had fallen through, a new concession was granted to a 50-50 consortium of Sinohydro and Peru's own Construcción y Administración, SA (CASA) (Ministerio de Transportes y Comunicaciones del Perú, 2020). The language used by national investment promotion agency Proinversión in its documentation about the project is strikingly similar to China's advocacy of the Bi-Oceanic Railway: the waterway is meant as “a corridor from Brazil to the great markets of Asia and Australia”⁷¹ (Proinversión, 2013). However, an enormous difference exists with respect to the cost: the waterway is budgeted at only \$94.7 million. It is also being done on a PPP basis over a twenty-year term, meaning debt is being held by the responsible joint venture.

China's use of debt to push capital into higher-risk but geostrategically significant projects has succeeded in some places, but not Peru. Part of this may have been due to a less direct Chinese interest than in, say, Kazakhstan or Pakistan (the topics of the next chapter), but China has nevertheless remained interested. Vice President Fu Mengzi of the China

⁷¹ Author's translation from original Spanish: *un corredor hacia desde Brasil hacia el gran mercado asiático y Australia*.

Institutes of Contemporary International Relations, a think tank housed within China's primary intelligence agency, stated that he hoped Peru would reconsider the project, although he acknowledged it was "difficult."⁷² It may be that China might have offered more favorable terms to a project in its more immediate interests—indeed, the following chapter will discuss major sacrifices of wealth for strategic navigational projects in Asia. The real constraint was Peru's willingness to undertake related costs. Instead, Peru downsized to a more modest investment in rail through areas of higher population density and a dredging project costing a fraction of the railway, but along a similar route. It may yet also sign on to a railway to Bolivia for lower cost, although this is still uncertain. These projects were better aligned to incentives provided by Peru's relatively small consumer market and were thus able to draw capital from places other than China: a Peruvian firm for the waterway, and European backing for the Bolivian railway. They were also done more often as equity stakes in public-private partnerships, at least in the case of the Peru-only waterway and coastal rail. Indeed, a Chinese firm is a partner in the concession for the waterway, and this could happen for the coastal rail.

Unlike in Ecuador, Peru's institutional framework made it difficult to splash enormous sums into politically motivated projects via debt, but this does not mean that there is no room for Chinese involvement. The waterway is only one of several public-private partnerships in which Chinese firms have invested. A major port expansion project is being planned at Chancay, to the south of Lima, in a bid to alleviate congestion at the existing primary port of Callao, to the immediate north of Lima. China Ocean Shipping (COSCO) has already paid \$225 million for a 60 percent stake in the concession (World Maritime News, 2019). Planned investments in the port's expansion are eventually expected to reach \$3 billion

⁷²Original Chinese: 很难。 At Congreso Nacional ALADAA-Perú, September 25, 2019, Pontificia Universidad Católica del Perú, Lima.

(Yilei Sun and T. Daly, 2019).

Other PPP or equity deals include several in the power sector. In 2015, Hydro Global, a joint venture of Three Gorges and Energias de Portugal, filed a declaration of interest with Peru's investment authority to build a new hydroelectric dam (Gestión, 2015; Proinversión, 2015). This would give any other interested parties ninety days to file their own paperwork preceding a competitive bid, but the concession for the new San Gabán III dam—there were already two others nearby—did indeed stay with Hydro Global. Construction is being done by China Water & Electric (CWE), a Three Gorges subsidiary, and the joint venture will manage the completed product for a thirty-year term. During this time, 5 percent of generated power will go to Empresa Generación Eléctrica San Gabán (EGESG), a state-owned firm which already manages the San Gabán II dam and has a concession to build another. The other 95 percent of revenues will stay with the concession-holders, who out of a planned budget of \$560 million have borrowed \$438 million from China Development Bank on a nineteen-year term (Gestión, 2018; Harris, 2017; Proinversión, 2016). This “self-financed” (*autofinanciado*) project puts no obligation on the Peruvian state budget and even pays out a small amount to a Peruvian state-owned firm. This was effectively a compromise between China's debt-backed model and Peru's preferred equity investment. Few other bidders were interested in the Hydro Global-proposed project, and the Peruvian government mostly entertained the idea because Hydro Global offered to provide all necessary financing. However, Peru hosted enough other investment projects, including in hydroelectricity, that they were in a position to ask the investor to take on most project risk—the San Gabán III project was expendable from their perspective. So, Three Gorges did take an ownership stake, but at least partially due to others' lack of interest managed to handle all of the construction work internally using financing from a policy bank in Beijing.

China Development Bank is functionally assuming much of the risk that the project turns a loss, but unlike in the cases of loans directly to the recipient government cannot share that risk with the local authorities.

Whereas the San Gabán III dam never attracted much investor interest to begin with, another Chinese-invested hydroelectric plant at Chaglla was more the product of a prior investor's departure. The Chaglla plant had already been built by Odebrecht, which spent \$1.5 billion to develop it, including \$774 million lent by Brazil's national development bank, BNDES, and \$150 million from the Inter-American Development Bank (Aquino, 2018; Inter-American Development Bank, 2011; N. Stone, 2013). The project was near completion when the Odebrecht scandal spread from Brazil to Peru, leading to the firm's expulsion from most ongoing contracts in the country. The Chaglla dam was too far along to simply abandon, but many other engineering firms were put off by the whiff of corruption surrounding it. China's Three Gorges filled the void, purchasing the project in 2019 (Ven, 2019). The Bank of China, ICBC, and Spain's BBVA, issued an \$850 million, two-year bridge loan for the project and covered the rest of the \$1.4 billion purchase price by purchasing an equity stake (Inframation, 2019). Of this \$1.4 billion price, \$600 million went toward paying Odebrecht's creditors; \$100 million toward a settlement with Cofide, Peru's national development bank; and \$319 million toward settling a civil suit over bribery (Gestión, 2019). In other words, less than a third of the purchase price actually went toward construction; most went toward cleaning up after a scandal that Three Gorges did not create. The panoply of creditors and injured parties which could possibly sue Odebrecht's heirs presented a high degree of political risk, especially since they might be sympathetic figures in the court of public opinion, not to mention the actual judicial system. These risks were multiplied by the fact that Three Gorges committed to operate the project for fifteen

years. The company only did so with implicit backing from (mostly) Chinese banks, including the unusual measure of banks taking equity stakes. Three Gorges' use of funding from Chinese commercial banks and one European private firm also reflects a quirk of this case: because the construction was already mostly done and in the legal ownership of part of the Peruvian government, the policy banks could not fulfill their usual function of ensuring that funds go to Chinese construction firms. As one report on the dam put it, "The Export–Import Bank of China looked at the deal initially, but since the borrower is a Peruvian SPV [special purpose vehicle], they could not participate due to internal regulations [...]" (Inframation, [2019](#)).

Lastly, and much less dramatically, China Yangtze has as of October 2019 agreed to buy the Peruvian assets of the American firm Sempra, which manages a large part of Peru's electrical grid. The deal is very large, valued at \$3.59 billion, and unlike the hydroelectric projects does not come with an expiration date on the relevant concession. The deal is similar to Chaglla, though, in that a Chinese firm is moving in where another was forced to retreat. Based in San Diego, Sempra was significantly affected by 2019's California wildfires and opted to sell off its two South American divisions to deal with issues at home. (Sempra also plans to sell its Chilean assets to China's State Grid for \$2.23 billion.) (Sarkar, [2019](#); Sarkar and Shariq Khan, [2019](#)). China is again moving in to voids left by other market actors, although the Peruvian (and Chilean) grid assets were lower-risk opportunities and merited multi-billion dollar equity investments.⁷³

⁷³As of this writing, these deals are being reviewed for antitrust considerations and are not yet final.

6.2.3 Conclusion: Peru

Peru's general stability presents a useful contrast to Ecuador. While Ecuador's fragile post-crisis compromise did not last long, the basic structures created by the Fujimori administration following Peru's turbulent 1980s have largely endured. As a result, Peru exhibits little variation over time, but much more variation across sectors, as Peru's bureaucracy exercises effective oversight over much of the economy but leaves some pockets less covered. In the fishmeal and mineral extraction sectors, the inherent commercial promise of exports to China combined with a reliable Peruvian institutional framework meant that firms were comfortable making equity investments, sometimes without any apparent direct support from Beijing. This underscores the interactive nature of the relationship between political risk, resource interests, and development finance stringency. China did not use commodity-backed loans in Ecuador because Ecuador had oil; it did so because Ecuador had oil *and* its track record toward international investors deterred most firms from entering without encouragement from the home government. Within Peru, the failure of the Bi-Oceanic Corridor reveals the limits of this risk-management strategy. The Corridor itself was not profitable and highly politicized, negotiated more by diplomatic summit than by the more reliable rules and regulations of Peru's bureaucracy. China tried to use debt to push firms into a geostrategic project here, but cognizant of having better options, Peru backed out and opted for competitive bids on smaller-scale projects. A mismatch between high project-level risk and lower national-level risk was the project's undoing. Other exceptions existed where subnational institutions were weaker than national (the Iquitos sewer) and to a limited degree where the departure of Brazil left a void. Overall, the Peruvian case illustrates how China approaches development finance where important commercial interests are involved, but stronger local institutions and international competition present

constraints.

6.3 Conclusion: Resource-Backed Loans

Large-n and case study evidence both demonstrate that resource-backed loans are designed for markets in which China has commodity interests but local institutions are less favorable to foreign loans or investment. This covers one extreme of this dissertation's spectrum of stringency in financing terms. The most stringent terms (resource collateralization) are reserved for the toughest cases with the understanding that bilateral relations could suffer. This was certainly the case in Ecuador, where the optics of a close commercial relationship clashed with sharp rhetoric by the Ecuadorian leadership and the reality was probably not receiving the best possible deal for its oil wealth.

These findings extend a pattern begun by Chapters 4 and 5. These showed that aid and equity are better for bilateral relations but (in the case of equity) are susceptible to political risk. This chapter added resource-backed loans as an even stronger reaction to political risk.

The next chapter introduces the last of the main independent variables not yet discussed in-depth: geostrategic interests. Where political risk is an issue, the risk management value of tied loans can propel capital into areas of strategic interest, potentially leading to a delicate balancing act between the need to stay on good terms with countries at geostrategically important junctures and the potentially onerous terms used by banks to protect firms. Chapter 7 will move toward the geostrategically central⁷⁴ Eurasian context. Here, where political risk is high, resource-backed loans only seldom enter the picture; after all, China has much

⁷⁴From China's perspective.

more to lose here from a tense bilateral relationship. Instead, we observe a mix of grants, equity, and loans depending on the risk profile and geostrategic nature of the project in question.

6.4 Appendix

Table 6.9: Cash vs. Resource-Backed Loans, Commitment Basis, “Low” Scenario (AidData; Global Sample), Borders and Chokepoints Specification

	(1) Tobit: Loans	(2) Tobit: Cash	(3) Tobit: Resource	(4) Logit: % Resource
Taiwan recognition (binary)	-29.63*** (-21.80)	-29.76*** (-22.19)	-54.74*** (-5.74)	
ASEAN member, SCS disputant (binary)	-2.230* (-1.93)	-2.233* (-1.88)	-51.03*** (-5.05)	-13.97*** (-9.06)
ASEAN member, SCS non-disputant (binary)	1.702 (0.87)	1.932 (1.00)	3.870 (0.73)	-3.358** (-2.06)
UNGA voting similarity with China (one-year lag)	10.50*** (2.68)	9.290** (2.34)	23.26 (1.37)	8.414** (2.26)
Border with China (binary)	1.838 (1.55)	2.082* (1.70)	2.789 (0.63)	-1.407 (-1.40)
Chokepoint (binary)	-0.782 (-0.76)	-0.529 (-0.53)	-7.569* (-1.78)	-0.954 (-1.24)
Distance from China (pop.- weighted; thousands <i>km</i>)	0.302** (2.11)	0.292** (2.01)	1.336** (2.57)	0.0633 (0.55)
Commodity exports to China (log; one-year lag)	-0.0334 (-0.20)	-0.00770 (-0.05)	0.0587 (0.10)	-0.0458 (-0.25)
Total imports from China (log; one-year lag)	1.978** (2.39)	2.008** (2.40)	4.272 (1.51)	0.665 (0.92)
Rule of Law (WGI; one-year lag)	2.516 (1.06)	1.772 (0.77)	23.22*** (2.84)	3.337** (2.06)
Rule of Law × commodity exports	-0.401** (-2.21)	-0.292* (-1.73)	-2.478*** (-4.95)	-0.439*** (-4.19)
Polity score (one-year lag)	-0.0586 (-0.85)	-0.0679 (-0.95)	-0.242 (-1.09)	0.0825 (1.43)
Debt-to-GDP ratio	-0.808* (-0.808)	-0.803* (-0.803)	-1.408 (-1.408)	-0.370 (-0.370)

Continued on next page

Table 6.9: Cash vs. Resource-Backed Loans, Commitment Basis, “Low” Scenario (AidData; Global Sample), Borders and Chokepoints Specification

	(1)	(2)	(3)	(4)
	Tobit: Loans	Tobit: Cash	Tobit: Resource	Logit: % Resource
(log; one-year lag)	(-1.82)	(-1.80)	(-0.86)	(-1.08)
GDP per capita (log)	-2.366*** (-3.03)	-2.575*** (-3.31)	-3.939 (-1.39)	-0.0879 (-0.12)
Population (log)	-1.023 (-1.50)	-1.084 (-1.59)	-2.382 (-1.02)	-0.215 (-0.36)
English language (binary)	1.556** (2.09)	1.602** (2.15)	5.177 (1.41)	-0.110 (-0.11)
Time (Y2000 = 1)	0.757*** (2.89)	0.722*** (2.80)	3.977*** (3.30)	0.207 (1.09)
Time ²	-0.0317** (-2.28)	-0.0283** (-2.07)	-0.219*** (-3.70)	-0.0179* (-1.92)
Constant	-10.86 (-1.51)	-7.919 (-1.09)	-69.34*** (-2.74)	-17.27*** (-2.76)
Countries	124	124	124	86
Start Year	2000	2000	2000	2000
End Year	2014	2014	2014	2014
Observations	1499	1499	1499	488
Clustered SE?	✓	✓	✓	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from AidData (AD) with additional resource-backed loan variable coded by author.

Table 6.10: Cash vs. Resource-Backed Loans, Commitment Basis, “Low” Scenario (AidData; Global Sample), BRI Specification

	(1)	(2)	(3)	(4)
	Tobit: Loans	Tobit: Cash	Tobit: Resource	Logit: % Resource
Taiwan recognition (binary)	-29.20*** (-21.89)	-29.26*** (-22.56)	-50.48*** (-5.60)	
ASEAN member, SCS disputant (binary)	-1.057 (-0.82)	-1.087 (-0.80)	-45.44*** (-4.76)	-12.75*** (-8.53)
ASEAN member, SCS non-disputant (binary)	0.814 (0.47)	1.013 (0.59)	4.458 (0.73)	-2.946** (-2.20)

Continued on next page

UNGA voting similarity	7.184**	6.055*	19.40	8.547**
with China (one-year lag)	(2.14)	(1.80)	(1.12)	(2.12)
BRI route (binary)	4.187***	4.279***	2.036	-0.193
	(4.69)	(4.79)	(0.57)	(-0.26)
Distance from China (pop.-	0.504***	0.485***	1.552***	0.157
weighted; thousands <i>km</i>)	(4.79)	(4.66)	(2.75)	(1.38)
Commodity exports to	-0.0805	-0.0498	-0.0292	-0.128
China (log; one-year lag)	(-0.52)	(-0.35)	(-0.05)	(-0.62)
Total imports from	1.671**	1.672**	3.663	0.482
China (log; one-year lag)	(2.19)	(2.19)	(1.26)	(0.67)
Rule of Law (WGI;	4.270*	3.539*	23.00***	3.927***
one-year lag)	(1.93)	(1.68)	(2.85)	(2.64)
Rule of Law	-0.526***	-0.416***	-2.506***	-0.476***
× commodity exports	(-3.06)	(-2.68)	(-5.29)	(-4.80)
Polity score	-0.0542	-0.0657	-0.248	0.0259
(one-year lag)	(-0.85)	(-1.00)	(-1.15)	(0.60)
Debt-to-GDP ratio	-0.907**	-0.901**	-1.297	-0.349
(log; one-year lag)	(-2.38)	(-2.30)	(-0.75)	(-0.96)
GDP per capita (log)	-2.547***	-2.731***	-3.659	-0.0707
	(-3.36)	(-3.65)	(-1.28)	(-0.10)
Population (log)	-1.043	-1.081*	-2.217	-0.0391
	(-1.61)	(-1.68)	(-0.93)	(-0.06)
English language	1.849***	1.885***	5.924	0.0278
(binary)	(2.76)	(2.83)	(1.54)	(0.03)
Time (Y2000 = 1)	0.889***	0.853***	4.251***	0.276
	(3.43)	(3.33)	(3.44)	(1.39)
Time ²	-0.0366***	-0.0331**	-0.228***	-0.0198**
	(-2.69)	(-2.47)	(-3.81)	(-2.03)
Constant	-4.168	-1.341	-66.27**	-18.02***
	(-0.64)	(-0.21)	(-2.52)	(-2.72)

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from AidData (AD) with additional resource-backed loan variable coded by author.

Table 6.11: Cash vs. Resource-Backed Loans, Commitment Basis, African/Latin American Sample, Chokepoints Specification

	(1)	(2)	(3)	(4)
	Tobit:	Tobit:	Tobit:	Logit:
	Loans	Cash	Resource	% Resource

Continued on next page

Table 6.11: Cash vs. Resource-Backed Loans, Commitment Basis, African/Latin American Sample, Chokepoints Specification

	(1)	(2)	(3)	(4)
	Tobit: Loans	Tobit: Cash	Tobit: Resource	Logit: % Resource
Taiwan recognition (binary)	-26.24*** (-22.05)	-29.02*** (-22.50)	-31.47*** (-5.38)	
UNGA voting similarity with China (one- year lag)	1.195 (0.26)	1.403 (0.24)	10.83 (0.89)	0.568 (0.20)
Chokepoint (binary)	0.791 (0.48)	1.310 (0.80)	-29.77*** (-4.18)	-12.40*** (-8.45)
Distance from China (population-weighted; thou- sands <i>km</i>)	-0.288 (-1.47)	-0.103 (-0.45)	1.127* (1.80)	0.176 (1.02)
Commodity exports to China (log; one-year lag)	-0.0353 (-0.22)	-0.257 (-1.15)	1.506 (1.46)	0.390 (1.19)
Total imports from China (log; one-year lag)	-0.103 (-0.12)	0.838 (0.79)	1.266 (0.41)	-0.123 (-0.13)
Rule of Law (WGI; one-year lag)	6.685*** (3.24)	6.177*** (2.58)	18.21 (1.49)	1.332 (0.31)
Rule of Law × commodity exports	-0.693*** (-4.44)	-0.630*** (-3.40)	-1.944** (-2.49)	-0.256 (-1.02)
Polity score (one-year lag)	-0.0197 (-0.24)	-0.0605 (-0.55)	-0.351 (-1.62)	0.0103 (0.15)
Debt-to-GDP ratio (log; one-year lag)	0.368 (0.74)	-0.0124 (-0.02)	0.0945 (0.06)	0.0519 (0.13)
GDP per capita (log)	-0.0913 (-0.12)	-1.240 (-1.20)	-1.823 (-0.66)	0.414 (0.51)
Population (log)	0.392 (0.54)	0.206 (0.22)	-0.835 (-0.33)	0.0407 (0.06)
English language (binary)	0.985 (1.31)	2.276*** (2.62)	3.676 (1.01)	-0.0459 (-0.04)
Time (Y2000 = 1)	0.621* (1.87)	1.124** (2.53)	-0.0973 (-0.10)	-0.139 (-0.42)
Time ²	-0.0244 (-1.63)	-0.0370* (-1.88)	-0.00102 (-0.02)	0.00368 (0.25)
Constant	-7.497 (-0.86)	-14.78 (-1.43)	-53.65** (-2.38)	-13.03* (-1.66)
Countries	72	72	72	53
Start Year	2000	2000	2000	2000
End Year	2018	2018	2018	2018

Continued on next page

Table 6.11: Cash vs. Resource-Backed Loans, Commitment Basis, African/Latin American Sample, Chokepoints Specification

	(1)	(2)	(3)	(4)
	Tobit: Loans	Tobit: Cash	Tobit: Resource	Logit: % Resource
Observations	1007	916	916	332
Clustered SE?	✓	✓	✓	✓

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from SAIS-CARI and Inter-American Dialogue.

Table 6.12:
Cash vs. Resource-Backed Loans, Commitment Basis
African/Latin American Sample
BRI Specification

	(1) Tobit: Loans	(2) Tobit: Cash	(3) Tobit: Resource	(4) Logit: % Resource
Taiwan recognition (binary)	-26.19*** (-21.26)	-29.04*** (-21.44)	-32.00*** (-5.60)	
UNGA voting similarity with China (one-year lag)	0.980 (0.21)	1.104 (0.19)	11.34 (0.97)	0.976 (0.35)
BRI route (binary)	2.050 (1.52)	3.141** (2.49)	-2.669 (-0.87)	-0.855 (-1.17)
Distance from China (population-weighted; thousands <i>km</i>)	-0.169 (-0.82)	0.0869 (0.36)	1.018 (1.39)	0.124 (0.67)
Commodity exports to China (log; one-year lag)	-0.0394 (-0.26)	-0.279 (-1.28)	1.567 (1.60)	0.367 (1.32)
Total imports from China (log; one-year lag)	-0.0247 (-0.03)	0.989 (0.97)	1.043 (0.34)	-0.0942 (-0.10)
Rule of Law one-year lag)	6.958*** (3.62)	6.470*** (2.94)	17.89 (1.45)	1.392 (0.35)
Rule of Law × commodity exports	-0.695*** (-4.81)	-0.624*** (-3.80)	-1.932** (-2.45)	-0.263 (-1.17)
Polity score (one-year lag)	-0.0554 (-0.73)	-0.123 (-1.24)	-0.325 (-1.62)	0.00595 (0.09)
Debt-to-GDP ratio (log; one-year lag)	0.231 (0.48)	-0.235 (-0.39)	0.294 (0.17)	0.140 (0.32)
GDP per capita (log)	-0.307 (-0.41)	-1.568 (-1.48)	-1.591 (-0.55)	0.472 (0.56)
Population (log)	0.292 (0.41)	0.0445 (0.05)	-0.660 (-0.25)	0.0885 (0.12)
English language (binary)	1.058 (1.48)	2.421*** (2.90)	3.509 (0.97)	-0.198 (-0.17)
Time (Y2000 = 1)	0.623* (1.87)	1.135** (2.53)	-0.147 (-0.15)	-0.161 (-0.48)
Time ²	-0.0244 (-1.64)	-0.0375* (-1.90)	0.00116 (0.02)	0.00462 (0.31)
Constant	-6.004 (-0.71)	-12.75 (-1.22)	-55.17** (-2.40)	-14.25* (-1.76)

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

Data from SAIS-CARI and Inter-American Dialogue.

Chapter 7

Geostrategic Interests

Apart from some minor concerns regarding the Panama Canal, the previous three chapters' focus on cases far from significant Chinese geostrategic interests did not lend itself to testing such considerations. Statistical testing in these chapters did assess the direct relationship between geostrategic factors and development finance stringency (H3A), but not for an interaction between geostrategic importance and political risk (H3B). The results for H3A were mostly supportive of the theory. Geostrategically important states on average receive a higher proportion of grants over zero-interest loans; more equity investments; and more freelance construction projects. However, they also receive much more debt, which would seem to contradict the theory's prediction of laxer terms for geostrategically important countries.

In this chapter, I find that this unexpected result for debt is the product of an interactive relationship between geostrategic importance and political risk. Loans are targeted specifically at countries which are both along Belt and Road routes and present higher levels of political risk. BRI countries with stronger rule of law can draw capital without an active

Chinese government intervention. Chapter 5 already established that freelance contract revenue and equity investment are correlated with geostrategic indicators. I here find that for some indicators, there is actually a *positive* interaction between rule of law and geostrategic importance for freelance contract revenues. Firms can be trusted to build geostrategically important projects on their own where the risk is manageably low. Only elsewhere does the government incur the diplomatic and financial costs of issuing debt.

Following the format of the previous chapters, I use a mixed-methods approach to demonstrate these findings. First is a large-n section using similar statistical models to those in the previous chapters, but with additional interactive terms for geostrategic interests. Second are case studies of Pakistan and Kazakhstan. Both are indispensable to their respective portions of the Belt and Road. The “New Eurasian Land Bridge” cannot reach Europe without passing through Kazakhstan. The China Pakistan Economic Corridor (CPEC) is meant to connect western China to the Indian Ocean and only passes through the two countries in its title. At the same, both Kazakhstan and Pakistan border China and are home to concerns regarding transnational insurgencies and border security.

There are differences between the two, though. One is domestic governance. Both are relatively high-risk by global standards but have reversed places over time. Pakistan tended to score higher for rule of law through 2007, but Kazakhstan has since pulled ahead. This variation over time allows us to test the implications of political risk. There is a more unambiguous difference between the two with respect to the relative weight of Chinese geostrategic and economic interests. Despite its smaller size, Kazakhstan is more commercially significant, with a steady stream of oil revenues to fund new construction contracts and a steady stream of oil to alleviate China’s energy security concerns. Pakistan, on the other hand, is more important to regional (or even global) geopolitics and is home to more

serious border security concerns. A comparison of the two allows us to see what happens when geostrategic concerns are front and center versus when they compete with resource security and other commercial interests.

As for the previous chapters, I begin with large-n analysis and then proceed to the case studies.

7.1 Quantitative Analysis

Table 7.1 uses the same data sources and methodology as Table 5.2 in the previous chapter but uses interactive terms for geostrategic variables instead of natural resources. These data and methods are detailed in Section 5.1.1.1 of the previous chapter.

Table 7.1: Contracts and Loans, Commitment Basis, Geostrategic Interactive Terms, Global Sample

	(1) Tobit: Contracts (AEI)	(2) Tobit: Loans (AD)	(3) Tobit: Contracts (AEI)	(4) Tobit: Loans (AD)
Taiwan recognition (binary)	-6.813*** (-5.46)	-30.37*** (-22.84)	-6.745*** (-5.01)	-29.21*** (-22.84)
ASEAN member, SCS disputant (binary)	-0.406 (-0.33)	-2.392** (-2.07)	0.330 (0.25)	-1.295 (-0.90)
ASEAN member, SCS non-disputant (binary)	1.257 (0.81)	1.182 (0.57)	0.863 (0.57)	0.144 (0.08)
UNGA voting similarity with China (one-year lag)	8.448** (2.35)	10.63*** (2.68)	8.565** (2.55)	7.122** (1.96)
Border with China (binary)	0.892 (0.54)	0.851 (0.44)		
Chokepoint (binary)	2.547** (1.99)	-1.910 (-1.41)		
BRI route (binary)			2.700** (1.97)	2.150 (1.32)

Continued on next page

Table 7.1: Contracts and Loans, Commitment Basis, Geostrategic Interactive Terms, Global Sample

	(1) Tobit: Contracts (AEI)	(2) Tobit: Loans (AD)	(3) Tobit: Contracts (AEI)	(4) Tobit: Loans (AD)
Distance from China (population-weighted; thousands <i>km</i>)	-0.0924 (-0.69)	0.256* (1.73)	-0.0135 (-0.12)	0.418*** (3.74)
Commodity exports to China (log; one-year lag)	0.273 (1.59)	0.190 (1.22)	0.310* (1.86)	0.234* (1.71)
Total imports from China (log; one-year lag)	-0.295 (-0.38)	1.916** (2.36)	-0.249 (-0.34)	1.563** (2.15)
Rule of Law (WGI; one-year lag)	-1.927** (-2.54)	-2.169*** (-2.94)	-1.706** (-2.41)	-1.719** (-2.47)
Border with China × Rule of Law	0.880 (0.56)	-1.041 (-0.54)		
Chokepoint × Rule of Law	3.963*** (2.68)	-1.354 (-0.97)		
BRI route × Rule of Law			1.712 (1.29)	-2.089 (-1.39)
Polity score (one-year lag)	-0.0961 (-1.45)	-0.0591 (-0.87)	-0.117* (-1.83)	-0.0314 (-0.50)
Debt-to-GDP ratio (log; one-year lag)	-0.195 (-0.40)	-0.746 (-1.64)	-0.465 (-1.01)	-0.649* (-1.68)
GDP per capita (log)	0.793 (1.05)	-2.107*** (-2.61)	0.593 (0.84)	-2.140*** (-2.79)
Population (log)	1.797*** (2.79)	-1.005 (-1.47)	1.554*** (2.61)	-0.953 (-1.55)
English language (binary)	1.576** (1.97)	1.562** (2.01)	1.561** (2.08)	1.813*** (2.61)
Time (Y2000 = 1)	1.707*** (3.81)	0.708*** (2.67)	1.641*** (3.65)	0.833*** (3.07)
Time ²	-0.0478*** (-2.72)	-0.0292** (-2.09)	-0.0450** (-2.54)	-0.0339** (-2.42)
Constant	-55.05*** (-7.61)	-14.30** (-1.97)	-50.27*** (-7.44)	-10.27 (-1.65)
Countries	125	124	125	124
Start Year	2005	2000	2005	2000
End Year	2017	2014	2017	2014
Observations	1546	1499	1546	1499
Clustered SE?	✓	✓	✓	✓

Continued on next page

Table 7.1: Contracts and Loans, Commitment Basis, Geostrategic Interactive Terms, Global Sample

	(1)	(2)	(3)	(4)
	Tobit:	Tobit:	Tobit:	Tobit:
	Contracts	Loans	Contracts	Loans
	(AEI)	(AD)	(AEI)	(AD)

t statistics in parentheses

* $p < .1$, ** $p < .05$, *** $p < .01$

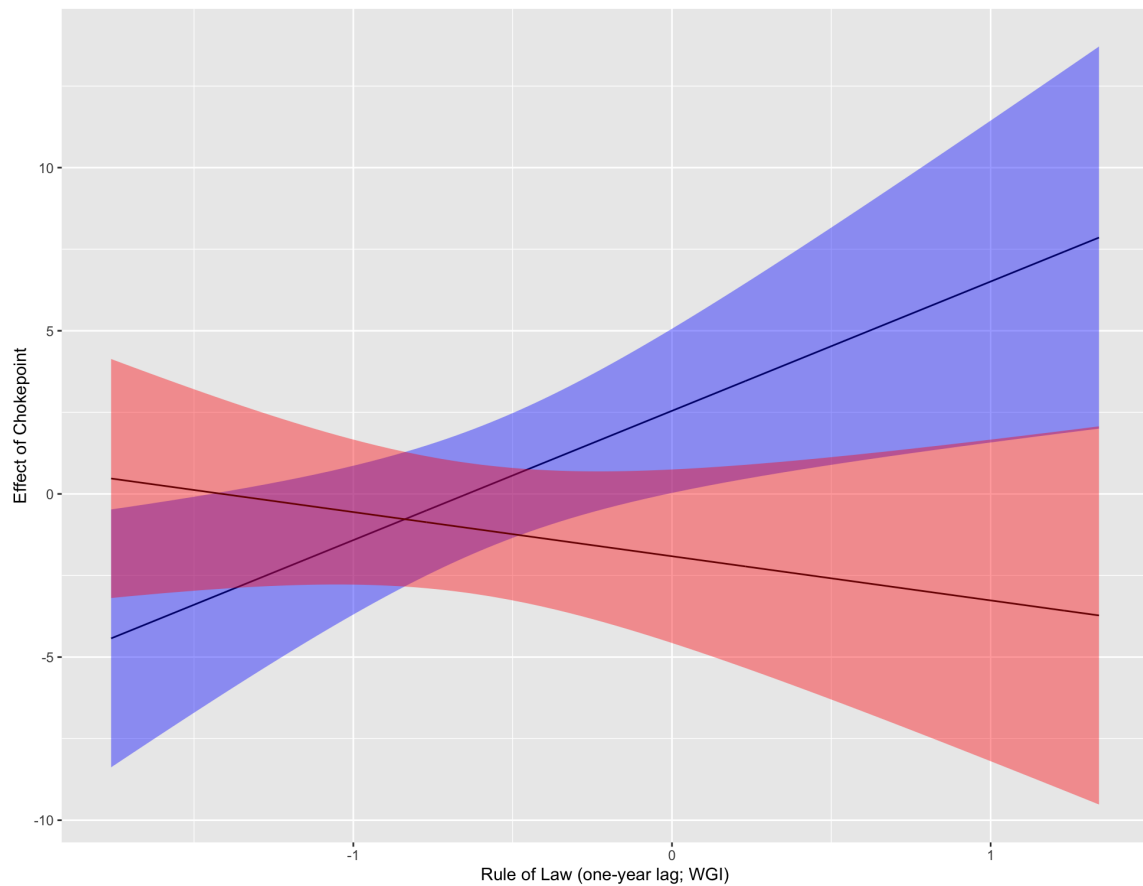
Data from American Enterprise Institute (AEI) and AidData (AD).

The results are mostly, if not perfectly, supportive of the theory. On one hand, only one interactive term (the chokepoint interaction for contracts in Column 1) reaches conventional statistical significance. Both BRI interactive terms come reasonably close— $p \approx 0.196$ and $p \approx 0.164$ for contracts and loans, respectively. More importantly, though, the predictions of the models for contracts and loans do indicate substantial differences between the two outcomes of interest at certain levels of governance quality. This is best conveyed graphically. Figures 7.1 and 7.2 illustrate the distinction between contract revenues in the aggregate and those backed by tied loans in particular. The first figure illustrates the interactive relationship between rule of law and chokepoints; the second, between rule of law and BRI routes.

Contracts are derived from geostrategically important locations with higher rule of law scores, while loans go to those with weaker scores. However, the observed interactive relationship between rule of law and chokepoints is much stronger for contracts; indeed, the point estimate of the relationship between the chokepoint binary and loans never reaches statistical significance for any rule of law score. The opposite is true for BRI routes, which matter much more for loans than for contracts.

The reason for this is the subtle distinction between pure geography as measured by the

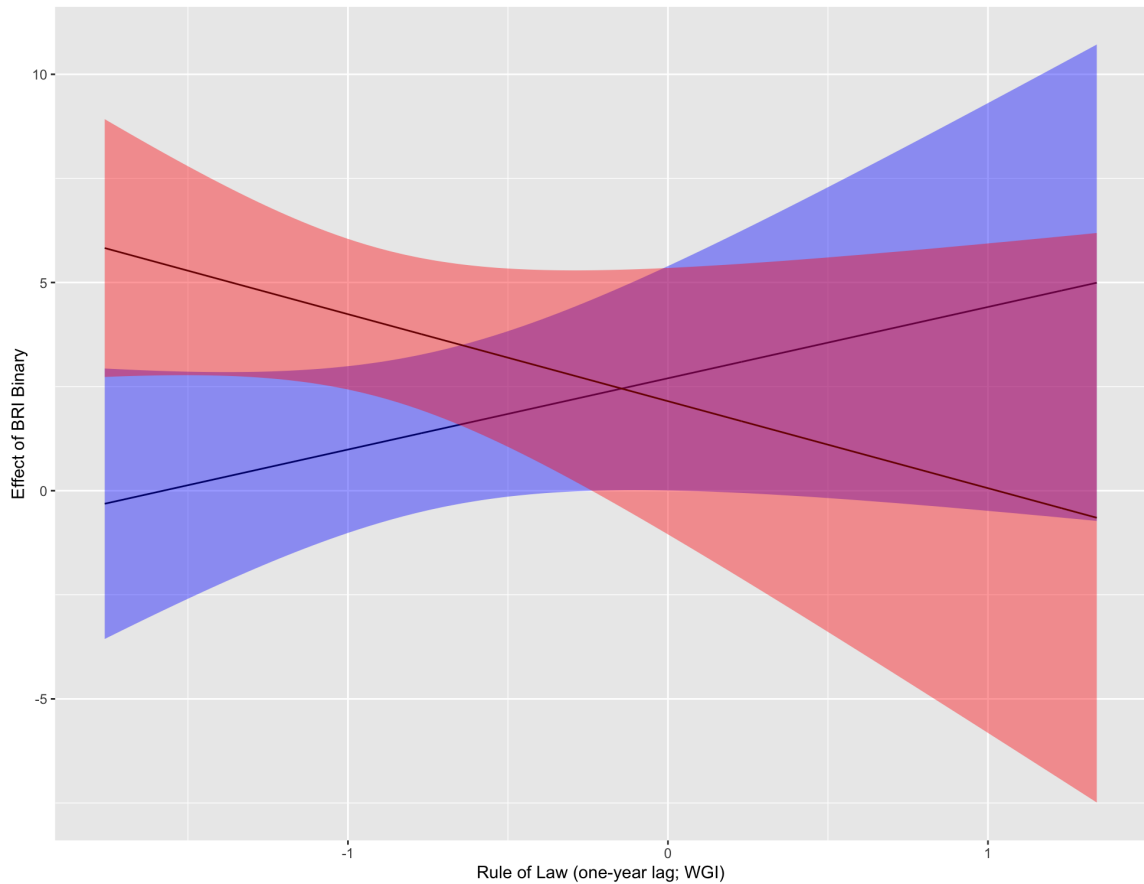
Figure 7.1: Effect of Location at Chokepoint on $\text{Ln}(\text{Chinese Contracts} + 1)$ and $\text{Ln}(\text{Chinese Loans} + 1)$, Varying Control of Corruption



Contracts in Blue; Loans in Red

Based on models of contracts per AEI (2005-2017) and loans per AidData (2000-2014) in Table 7.1, Columns 1 and 2. Assuming non-recognition of Taiwan. All other variables set to mean. Shaded areas are 95% confidence intervals.

Figure 7.2: Effect of Location on BRI Route on $\text{Ln}(\text{Chinese Contracts} + 1)$ and $\text{Ln}(\text{Chinese Loans} + 1)$, Varying Control of Corruption



Contracts in Blue; Loans in Red

Based on models of contracts per AEI (2005-2017) and loans per AidData (2000-2014) in Table 7.1, Columns 3 and 4. Assuming non-recognition of Taiwan. All other variables set to mean. Shaded areas are 95% confidence intervals.

chokepoint binary and geostrategic intent as measured by China's Belt and Road policy. Readers may recall the finding of Chapter 4 that China gave more grants than zero-interest loans to bordering states and those at maritime chokepoints, but that this did not hold for BRI countries. The implication was that China needed to be as friendly as possible to countries at inherently important locations so as to maintain access, but that once a country was designated as an actual target for Chinese infrastructure projects under the Belt and Road, less concessional means would be necessary to build major throughways. Something similar is happening here. Maritime chokepoints have inherent commercial significance regardless of any articulation of official Chinese policy. So, Chinese contractors seek business there of their own accord, but only in countries with strong rule of law where they can be confident that they will be paid for their services. Oman, the chokepoint country with the highest average Rule of Law score (0.47) over the sample set,¹ hosted contracts but received no loans. Runner-up Malaysia, with a mean Rule of Law score of 0.46, was the source of \$10.99 in Chinese contract revenues for every \$1 disbursed in loans.²

This, however, leaves chokepoints with weaker governance patterns uncovered. In some cases, this does not matter much to Chinese interests, but certain chokepoints (especially those in Eurasia) are integral parts of the Belt and Road and have been officially designated as such. For example, the Panama Canal is undoubtedly a major chokepoint but was not part of the original Belt and Road blueprint; the same could not be said for the Straits of Malacca or Hormuz. Even at individual chokepoints, China may designate some neighboring countries as part of the Belt and Road but not others. For instance, at the Bab-al-Mandeb, Djibouti (which hosts a Chinese naval base) is noted on the official map

¹This includes the years 2005 through 2014, when both contract and loan data is available.

²This keeping in mind that because of the American Enterprise Institute (2019) database's exclusion of items under \$100M, the contract figures are understated, and the real ratio of contracts to loans is probably even higher.

of the Belt and Road; neighboring Eritrea and Yemen are not. Loans show no correlation with chokepoints at any level of rule of law, but they do correlate with official Chinese state priorities as articulated by plans for the Belt and Road. State-owned bank loans can incentivize firms to enter markets deemed important to national interests but with institutional environments which would otherwise deter many of them.

Figure 7.2 illustrates this dynamic for Belt and Road countries. The relationship between the BRI binary and contract revenues is statistically significant at a $p = 0.10$ level above a Rule of Law score of -0.64. Of the states along Belt and Road routes, this is closest to Indonesia's mean value of -0.66. While contract revenues are drawn more from the high end of the rule of law distribution, loans go more toward the low end. Specifically, there is a statistically significant ($p = 0.10$) relationship between loans and the BRI binary for all rule of law scores below -0.13, near Thailand's mean score of -0.11. In a middle part of the distribution (roughly, between -0.66 and -0.13), we observe a more even mix of freelance and state loan-funded contracts, but outside this transitional zone, lenders are picking up where more risk-averse freelance contractors leave off. The Chinese state is using bank credit to push its firms in a desired direction, but only where governance risk necessitates the accompanying financial and diplomatic costs.

Overall, Table 7.1 presents relatively weak evidence for H3A, which predicted an overall relationship between geostrategic importance and financing terms. H3A overall held up better for aid and equity investment, which as concessional tools of financing are well-suited for outreach. New evidence in this chapter does, though, more strongly support H3B's prediction of an interaction between geostrategic importance and governance quality for construction contracts, backed by Chinese loans or otherwise. If anything, the observed interactive relationships are probably understated by the fact that globally available contract

data includes both contracts backed by loans and those which are not. If we were able to separate freelance contracts from loan-backed contracts (as could be done for the African data), the observed difference the two would almost certainly grow.

7.2 Chinese Development Finance in Pakistan and Kazakhstan

Pakistan and Kazakhstan are useful test cases for these findings at a greater level of depth. China has a series of common interests in its relationships with both countries, but there is enough within-country and cross-country variation in risk and commercial factors to make useful comparisons. Several commonalities revolve around shared borders with Xinjiang and attendant concerns regarding cross-border flows of extremist activity, narcotics, and human trafficking. At times, these concerns begin to blend with China's more general aim to reduce domestic inequality by using cross-border trade to promote growth in the less-developed western provinces. While much of the inland West is being targeted for growth, the initiative takes on a particularly security-tinged character in Xinjiang. Then, both Pakistan and Kazakhstan are indispensable first stops on their respective Belt and Road corridors; Pakistan is even the only country to have its own designated corridor. This introductory section provides overviews of 1) the trajectory of events in Xinjiang and how they affect China's overseas development finance; 2) Kazakhstan's and Pakistan's locational advantages in the context of the Belt and Road; and 3) differences in commercial interests and governance patterns across the two countries and over time.

7.2.0.1 Xinjiang

Xinjiang was a back-burner issue for many years, but diplomacy surrounding support for Chinese policy in Xinjiang and the security of the province have both become larger issues over time. This section outlines the trajectory of events in Xinjiang and how they ultimately matter for development finance.

The historically Turkic-speaking, Muslim territory now known as Xinjiang (literally translated, a “new frontier”) has faded in and out of Chinese control over time dating back to imperial dynasties. The PRC inherited it from the Qing empire, leading to an uneasy coexistence of a newly anti-imperialist, atheist Chinese state with a colonized, Muslim minority group. Notwithstanding some unrest in 1990, the contradiction simmered for much of the twentieth century, as Beijing tended to take a relatively hands-off approach to the province.

Two shocks upset this balance: 1) the September 11 attacks; 2) and the westward ripple effects of growth in China’s more populated East during the boom years of the 2000s. First, the 2001 emergence of terrorism as a primary driver of American foreign policy and a more prominent issue in global affairs created an opening for China to gain foreign (and especially American) assent for harsher policies in Xinjiang. Xinjiang was at this point a lower-profile issue than Tibet but nevertheless a source of bad press for China. After 9/11, framing the issue in terms of terrorism proved relatively effective at reducing international pressure regarding treatment of the Uyghurs. Human rights groups remained skeptical, but the United States government in particular changed its tune. As the American military prepared for an invasion of Afghanistan, China offered to contribute. They probably did not expect the offer to be accepted, but it still conveyed a certain commonality of interests (Small, [2015](#), pp. 131–32). Xinjiang shares a short border with Afghanistan, and

China's nervousness about the Taliban was genuine. The American State Department, for its part, acceded to Beijing's request to designate the East Turkistan³ Islamic Movement as a terrorist organization (Kan, 2010, pp. 4–7). There remains some doubt as to the group's strength: Small (2015, pp. 89–91) estimated that as of his writing, perhaps tens of fighters remained in Pakistan's Waziristan region, a historical home base for insurgencies.⁴ Kan (2010, pp. 7–8) questions some of the evidence of supposed ties to al-Qaeda and points out that the ETIM's leader has denied any such fealty, an unlikely move if he had been expecting any support from bin Laden. Regardless, the War on Terror became a relatively successful pretext for Beijing to move more aggressively in Xinjiang.

This took time to unfold. High-speed growth in Han-majority provinces generated enormous dislocation and inequality as rural and inland areas fell behind the factory-powered cities and coasts. One safety valve for those left behind has been migration to Xinjiang (and Tibet). Shortly after the PRC's founding, the 1953 census found Xinjiang to be 75 percent Uyghur and 6 percent Han; the 2010 census, 46 percent Uyghur and 41 percent Han (Toops, 2004, p. 1; Toops, 2016). Uyghurs are already a minority in the provincial capital of Urumqi and may well not be the largest group forever. Han settlement is being actively subsidized in some areas (Hoja, 2020). There is also a perception that much of Xinjiang's natural wealth (especially oil) is being appropriated by the central government and Han settlers without benefiting Uyghurs. Economic studies show that Uyghurs have benefited economically from the influx of cash, but the cultural clash and sense of loss of control remain (A. H. Liu and Peters, 2017; T. Miller, 2017, Chapter 2). In 2009, Xinjiang experienced its worst outbreak of violence in some time, with an official death toll of 197.

³This name is used by Uyghur activists instead of the Han-centric "Xinjiang."

⁴Located along the Afghan border, Waziristan's significance to insurgent groups dates back to the groups' war against the Soviet Union in the 1980s. See also Cooley (2012, pp. 76–77) and T. Miller (2017, Chapter 2).

Two knife attacks at train stations and an explosion at Tiananmen Square have since followed (Handley, 2019). The Tiananmen attack was perpetrated by Uyghurs from near the border with Pakistan (Small, 2015, pp. 177–80). Beijing’s claims of extremism in Xinjiang ring truer today than in the immediate post-9/11 era.⁵

China’s reaction has been a campaign of repression. An unknown number of Uyghurs are in “reeducation” camps—one United Nations organization believes the figure to be around one million (BBC News, 2018). These are aimed at converting Uyghurs to secular Han culture, eliminating Islam from public life, and enforcing cultural homogeneity (Zenz, 2018). Even outside the camps, a network of cameras with facial recognition; checkpoints at the entrances to buildings; and surveillance of mobile communications exceeds that found in the rest of China (Byler, 2019; Rajagopalan, 2017). Some Uyghurs are also being used as forced factory labor (V. X. Xu et al., 2020). Uyghur desperation has increased along with Han exertion of control over time, and the threat from extremism is at a high point.

In international development finance, this means two things. First, the imperative of safeguarding the western border has strengthened as the extremist threat has turned from imaginary to real. This means being as understanding as possible with the financial situations of neighboring countries like Kazakhstan and Pakistan and perhaps sending counter-terrorism aid. Second, on a more global scale, there has been a predictable backlash against the internment camps. This made an appearance in Chapter 4 with Burundi’s vocal support for China, but the issue takes on greater urgency in majority-Muslim countries next to China. The attempt to persuade others to see eye-to-eye on Xinjiang has gained a spot below the Taiwan issue in the pantheon of major Chinese diplomatic concerns. As we shall see, China’s diplomatic efforts have succeeded in Pakistan but have fallen flat in Kaza-

⁵For a fuller discussion of the issues surrounding the settler colonization of Xinjiang, see Bovingdon (2010).

khstan.

7.2.0.2 Overland Connectivity

The government in Beijing prioritizes stability in Xinjiang largely because of its implications for territorial integrity and citizens' security, but it does touch on a more international issue: overland connectivity via Belt and Road routes. Both the New Eurasian Land Bridge via Kazakhstan and the China-Pakistan Economic Corridor (CPEC) pass through Xinjiang. Some projects generate wealth for Xinjiang-based companies, and there is a generalized hope among many Beijing elites that cross-border trade could contribute to prosperity and stability in the province. The commercial dimension of domestic stability leaves elites in a dilemma at the international level. On one hand, safe access across corridors built by China will require friendly relations with transit countries like Kazakhstan and Pakistan. On the other, being tougher on recipient countries can lock down economic resources for firms doing business in Xinjiang, which could thereby (at least hypothetically) contribute to stability. This tension is at the heart of the findings of this chapter's quantitative analysis. Beijing faces incentives to be as hands-off as possible with geostrategically important countries unless there is some compelling reason to do otherwise. This could be because firms are unwilling to build risky but strategically important projects and require extra state protection to do so; or it could be because of the presence of oil or other lucrative commercial interests. Looking across countries, the quantitative analysis showed that terms get tougher for countries with high political risk *and* natural resources or geostrategic significance. Within the Kazakhstani and Pakistani cases, we observe a similar pattern between sectors or even projects. The Chinese government will use tough terms to push firms into strategically important areas—e.g., highways from the Chinese border to the Pakistani coast—but may be exceptionally forgiving elsewhere to blunt the potential damage to bi-

lateral relations—for example, favorable deals on electricity generation in power-scarce Pakistan.

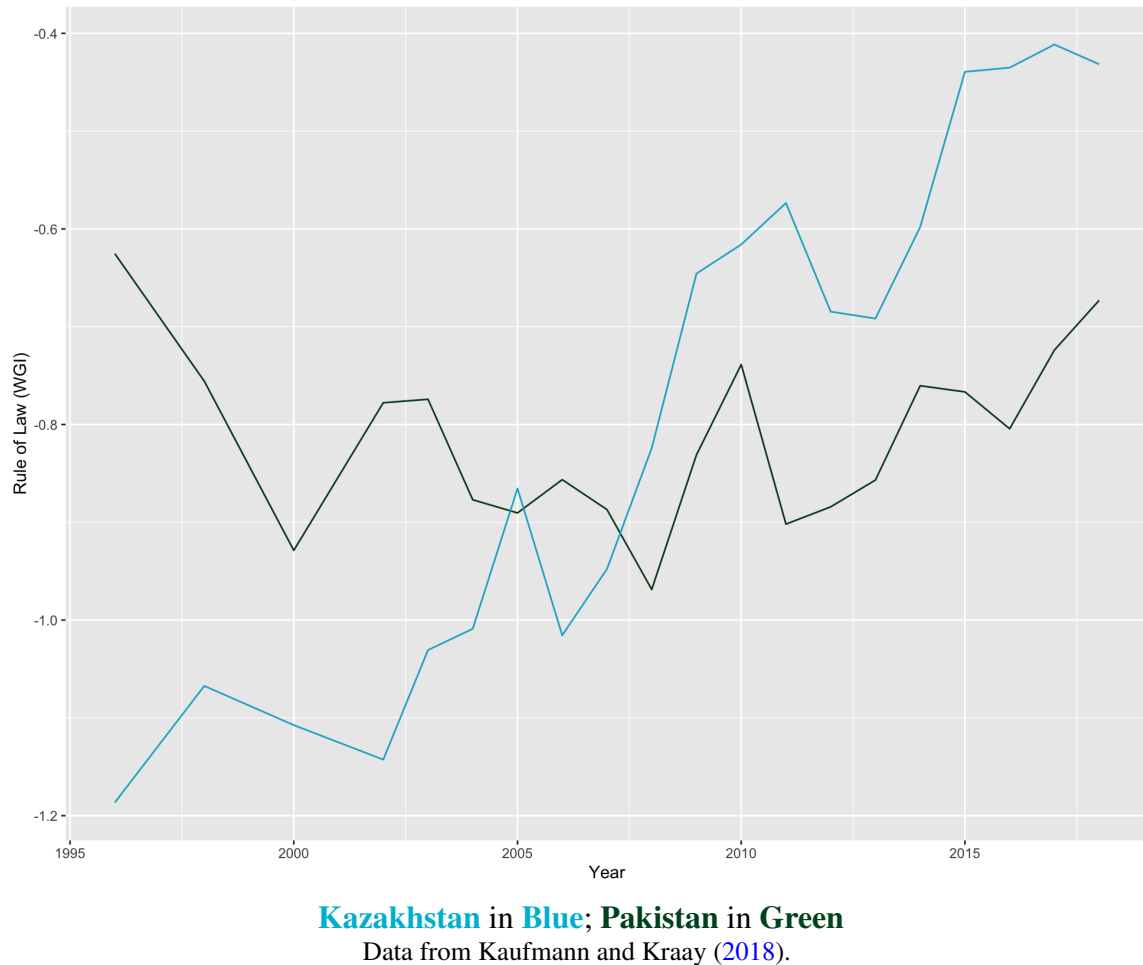
7.2.0.3 Commerce and Political Risk

Kazakhstan's and Pakistan's common importance to geostrategic interests masks some important variation. Notably, Kazakhstan is a major exporter of hydrocarbons and uranium. These minerals by themselves must change China's calculus, as do their implications for a Kazakh state budget more flush with revenues to spend on Chinese construction projects. Pakistan, on the other hand, has few resources and tends to run current account and fiscal deficits which often lead to debt crises. Pakistan's relative weakness as a commercial destination is often outshined by its enormous implications for regional security. Parts of the country are hubs for extremist groups like the Taliban which present obvious concerns to Beijing. Many Pakistani (and Indian) elites also see China as a counterweight against India, although it is not clear to what extent China, the strongest of the three parties involved, shares this view of Pakistan. China must be as understanding as possible with Pakistan's state budget both because of strategic ties and more specifically because of the potential implications of a Pakistani economic downturn for China's own domestic security.⁶ In Kazakhstan, security concerns are somewhat more muted, and there enough commercial interests to lead to moderately strict financing terms.

Political risk is relatively evenly matched between the two countries in the aggregate, but not necessarily at any given point in time. The exact patterns of governance in each country will be discussed in their respective sections, but Figure 7.3 presents a basic graphical snapshot. Kazakhstan's score noticeably rises over time. As in other former Soviet states,

⁶This is similar to the dynamic observed by former U.S. Ambassador to Pakistan Robert M. Hathaway (2017), who sees Pakistani as using its own internal fragility as an asset at the bargaining table.

Figure 7.3: Rule of Law (Worldwide Governance Indicators), 1996-2018 (Commitment Basis)



the privatization era of the 1990s was fairly chaotic, but this did not last forever. Power was later consolidated under the presidency of Nursultan Nazarbayev, who was in office from Kazakhstanian independence in 1991 through 2019. Nazarbayev's rule brought a degree of stability, if not necessarily rule of law: the word of he, his family, and their associates is ultimately more decisive than the letter of the law. Still, rule by clique provides more stability from a business perspective than the free-for-all of the post-communism 1990s.

The score of Pakistan, on the other hand, has fluctuated within a fairly consistent bandwidth

over time. Risks to stability from terrorism and domestic conflict have waxed and waned but never fully disappeared. In none of the years in question has the Pakistani government fully controlled all of its own territory. Indeed, Pakistan's internal divisions between elected civilians, the military, and the intelligence community raise questions of how much civilian law even matters for parts of Pakistan's own establishment. Deals with one part of the Pakistani establishment are thus prone to interference from other parts or from non-state actors, especially extremist groups.⁷ Further complicating the matter is the fact that some extremist groups receive tacit or direct support from parts of the Pakistani establishment, in particular Inter-Services Intelligence (ISI), the influential military intelligence agency. China must tiptoe around non-state parties in Kashmir and elsewhere which are aligned with elements of the Pakistani state but can be more overt in its concerns with anti-state separatist groups like those in Balochistan. Even where militant groups are not concerned, Pakistan's perennial tensions between wealthy, populous Punjab and the less developed provinces can present headaches for investors in projects perceived to benefit some parts of the country more than others.

The remainder of this chapter analyzes these two cases. Because China's policy in Pakistan is more purely oriented toward the geostrategic interests on which this chapter focuses, it is discussed first. The Kazakhstani case then adds a layer of complexity with greater mineral and other commercial interests.

⁷In other words, Pakistan's primary political risk comes from leaders having little power, while Kazakhstan's comes from concentrated power. Studies such as (W. Hennisz, 2000, 2002) have operationalized political risk in terms of constraints on the executive, the underlying assumption being that the main source of danger to investors is arbitrary impingement on their interests by host country leaders. Under this framework, Pakistan's weak executive would be placed on the opposite end of a spectrum from Kazakhstan's strong. However, the remainder of this chapter will demonstrate that China reacts similarly when rule of law is undermined by weak and strong leaders alike. This provides a confirmation of the validity of the use of rule of law as an indicator of political risk.

7.2.1 Pakistan

Because geostrategic interests are central to the Pakistani case, this section arranges sectors of Chinese activity by level of geostrategic importance. Some sectors are inherently more geostrategically important than others—overland linkages from China to the Indian Ocean, for example, take precedence over the factory sector. Even within sectors, there may be variation in project-level risk or geostrategic significance. Following 1) a brief introduction to relevant Chinese interests and political risks, I begin with 2) items such as aid to refugees or law enforcement, which are openly aimed at security or geostrategic motives; before continuing to 3) overland transportation; 4) maritime transportation; and 5) telecommunications. The latter three categories can all be geostrategically significant in some instances but not all. For example, a highway connecting the Chinese border to the coast has clear geostrategic value to China, but Karachi city streets may not. These economic sectors allow us to compare the relationship between geostrategic interests and development finance stringency within the Pakistani case. After these, I turn to 6) electricity generation, which is not geostrategically important to China *per se* but is a major political issue in Pakistan and as such is a focus of Sino-Pakistani economic cooperation. Within the power sector, we can observe differences in levels of political risk based on the project-level details—e.g., a dam in territory disputed with India carries higher risk—and the type of power plant—for example, nuclear power is more geopolitically charged than hydropower. After electricity come 7) mineral extraction and 8) other projects. Neither of these are typically directly related to Chinese interests and either rely on third-party funding or (very occasionally) Chinese debt.

7.2.1.1 Background

The Sino-Pakistani relationship is generally deeper and dates back further into history than most relationships with many further-away developing states. The politics of India's partition put Pakistan in a position of chronic vulnerability *vis-à-vis* its larger perennial rival; the 1971 loss of East Pakistan to an India-friendly secession movement hammered the point home. China, for its part, had its own issues with India. The spirit of post-World War II, postcolonial solidarity between the two Asian giants faded fairly quickly with the 1962 Sino-Indian War. China's falling out with the Soviet Union over the course of the 1960s and subsequent rapprochement with the United States left it on the same side of the later Cold War as Pakistan, and China even contributed to Pakistani- and American-backed *mujahideen* fighters against the Soviet occupation of Afghanistan.⁸

The "all-weather friendship," to use a favorite Sino-Pakistani term, has survived the end of the Cold War and expanded to focus on new areas. The India issue is still there, although the distribution of military power is such that Pakistan takes it much more seriously than does China. From China's perspective, the drivers of the relationship are now the stability of Xinjiang, geostrategic navigational projects, and commerce. Home to a number of militant groups, Pakistan has as much bearing on stability in Xinjiang as does any other country. The sixty billion-dollar⁹ series of projects collectively referred to as the China-Pakistan Economic Corridor (CPEC) is a flagship for the Belt and Road in general. As the crow flies, Pakistan represents the shortest possible route from the Persian Gulf to Chinese territory¹⁰ and avoids the Strait of Malacca, where the U.S. Navy maintains a presence.

⁸Small (2015). See especially Chapter 1.

⁹This number is based on original plans for CPEC, many of which are experiencing delays and a few of which have been canceled. So, the final number is likely to be lower. See CPEC Authority (2020) and Prasso (2020).

¹⁰A. J. Siddiqui (2020).

Despite this significance, though, Pakistan remains a high-risk market. Chinese authorities are painfully and unusually publicly aware of this. A guide for Chinese investors issued by the State Taxation Administration of China [国家税务总局] (2018) cautions that:

Pakistan's domestic infrastructure is making great strides, its market is growing wealthier, and its investment opportunities are many. At the same time, it faces strained state finances; shortages of energy resources; monetary inflation; political instability; and other problems. In the short term, these problems will be difficult to resolve. Responding to the Belt and Road's call and actively investing in Pakistan may earn firms a high return, but firms will also face many risks including but not limited to those related to taxes.¹¹ (3)

The reference to taxes at the end is a nod to the issuing agency's core job description, but is not necessarily indicative of the main sources of risk in Pakistan. These come earlier in the passage and have to do with Pakistan's serial debt and financial woes as well as a series of internal political divisions ranging from mundane (inter-agency rivalry) to dangerous (militant extremism). Both present risks to investors. I begin with the more directly economic aspects of Pakistan's governance before looking at more political divisions which indirectly affect economic outcomes.

Pakistan's economic institutions lead to chronic fiscal and current account deficits which lead it to frequent debt crises. As of March 2020, the IMF estimated that tax collection remained 62 percent below its potential were the law fully enforced (Haider, 2020). Some of this is simply due to limited state capacity, a problem that affects most governments in Pakistan's region and at its income level. At the same time, studies have found that corruption and political instability both suppress government revenue collection (Amin et

¹¹ Author's translation from original Chinese: 巴基斯坦国内基础设施建设快速推进, 市场商品逐年丰富, 投资机会较多。与此同时, 国内财政拮据、能源紧张、通货膨胀、治安不靖、等问题短时间内难以解决。企业响应“一带一路”倡议, 积极投资于巴基斯坦, 可以获取较为丰厚的投资回报, 但也面临着包括税收风险在内的诸多风险。

al., 2014; Chaudhry and Munir, 2010). Low tax revenues are at times met by inflated government spending, especially in the power sector. Electricity shortages are a chronic problem in Pakistan, and the government heavily subsidizes consumption and maintains electricity prices at low rates. While this is meant to improve consumer access to electricity, it comes at the expense of power company revenues, and many producers struggle to afford fuel. Many borrow money just to cover fuel costs, and if they later cannot repay, they might borrow even more. Some periodically shut down production to avoid incurring any further costs, leading to rolling blackouts. This “circular debt” has ripple effects across the economy, especially in electricity-consuming industrial sectors, which have not done as well in Pakistan as in many other labor-rich Asian countries. A 2019 World Bank study found that electricity subsidies cost Pakistan’s economy a startling 6.5 percent of GDP per year; more of this came through indirect effects on other sectors of the economy than through the cost of the subsidies themselves (F. Zhang, 2019).

Low tax collection and reduced industrial output spell problems not just for the domestic fiscal balance, but also for the international balance of payments. Pakistan’s electricity sector has historically relied heavily on imported fuel, especially fuel oil from the Persian Gulf. This is not a problem in and of itself—industrial powers like Japan and South Korea also import fuels for power plants—but for the fact that inefficiencies in its use prevent Pakistan from generating enough exports to pay for it. In 2017, oil, coal, and gas were equivalent to approximately 23 percent of Pakistan’s imports and 41 percent of its trade deficit (Simoes and Hidalgo, 2011). The actual effect on the trade deficit is even higher, since a more efficient power sector could reduce reliance on imported manufactures and increase exports.

In the narrowest sense, this affects China in that Chinese firms have become heavily in-

volved in Pakistani power generation. More broadly speaking, Pakistan's chronic debt problems pose risks of non-repayment across the board. Pakistan drew on IMF funds in fourteen of the twenty-one years between 2000 and 2020 (International Monetary Fund, 2020c). There may be a degree of moral hazard here: many of the IMF's major contributors share China's concerns about what would happen were Pakistan to enter a sharp economic downturn, and the Pakistani leadership is aware that most Western countries are unwilling to totally leave them on their own (Hathaway, 2017). With Pakistan's track record, Chinese lenders do not necessarily have a reasonable expectation of being repaid. One Chinese specialist interviewed by scholar Yun Sun has stated that China expects to lose eighty percent of its money in Pakistan (T. Miller, 2017, Chapter 3). This is obviously a very high estimate and might not be universally shared in all corners of the establishment, but pessimism (if of a lesser degree) is generally well-founded. China's own guide to its investors did not express confidence that Pakistan could repay loans (State Taxation Administration of China [国家税务总局], 2018, p. 11). In an echo of China's domestic political economy as discussed in Chapters 2 and 3, this situation is much more troubling for the banks than for the firms. As Markey (2020) puts it:

Chinese loans to neighbors like Pakistan quickly cycle back into Chinese pockets when Chinese firms win construction contract bids. In the best-case scenario, Chinese companies are kept afloat by doing business in China's neighbors. Even if loans are slowly or incompletely repaid, the entire effort amounts to China subsidizing its own firms. This is hardly unusual in China's state-dominated (and still nominally communist) system. (2)

The question thus becomes under what conditions the banks are willing to sacrifice themselves for the firms. Risk is avoidable—there are lower-risk destinations than Pakistan, and lower-risk projects within the country than some selected by Chinese firms—but China's banks, and especially the policy-focused Export-Import Bank and China Development

Bank, sometimes see it fit to lose money regardless. This typically reflects some kind of strategic priority, whether it be a strategically oriented project or an item meant to curry favor with the leadership. Incompletely repaid loans appear in the quantitative data, but in practice they may begin to resemble unwritten partial grants, potentially with some of the attendant benefits for bilateral relations.

Pakistan is also home to domestic divisions¹² which present difficulties to investors without directly affecting macroeconomic policy. Regional rivalries are a perennial issue. The province of Punjab is home to roughly half of Pakistan's population and as such is the economic center of gravity. It is inherently easier to build profitable infrastructure in areas with more wealth and more users, meaning investors are naturally drawn to Punjab, but this can generate resentment in other provinces, where there is a sense that some presidential administrations in particular have favored Punjabis (Ebrahim, Kugelman, and Small, 2016; Rafiq, 2017, pp. 31–34). At the very least, this can spur the government to reallocate some investment funds to less privileged areas, which in turn forces private sector partners into lower-return markets. In some provinces, the risks are much more dramatic. Pakistan is home to a number of militant groups, some of them with separatist ideologies. China's major cluster of construction activity at Gwadar, for example, lies in Balochistan, where many locals see it as a stalking horse for encroachment from other parts of Pakistan. Militant groups have repeatedly attacked Chinese workers. The dispute in Kashmir affects China in a different way: while Pakistani Kashmiri groups have less reason to target China, projects in this disputed territory will typically draw the ire of India, potentially leaving firms in the lurch if funding organizations back out.

¹²Civil-military relations are a major issue in Pakistan but will not be discussed here. The military and civilian authorities both generally favor cooperation with China and have avoided the internal divisions which characterize Pakistan's relations with many other countries.

In short, Pakistan's domestic economic institutions tend to favor low government revenues, high expenditures, and costly infrastructural inefficiencies. Put together, these lead to repeated debt crises which concerned international parties feel little choice but to address. Divisions between the provinces and the central government mean that foreign investors must in some cases simultaneously walk on multiple tightropes. These risks are generally well-understood in China and are seen as worth incurring for some projects more than others.

7.2.1.2 Aid, Diplomacy, and Geostrategic Interests

Many projects have an indirect impact on border security and/or geostrategic interests by contributing to Pakistan's economy (and thus its domestic stability) and making it more likely that Pakistan allows China strategic access. A few Chinese-backed initiatives, though, fall more directly into the security sphere. In keeping with theoretical predictions for geostrategic factors, these are exclusively done by grants or very low-interest loans. I discuss in turn: 1) aid to deal with refugee inflows; 2) development assistance to Pakistani law enforcement, including but not limited to counterterrorism; and 3) a communications satellite with implications for Pakistan's space competition with India.

Afghanistan's civil war already created shared challenges for China and Pakistan even before the attacks of September 11 and the American invasion. During the height of the war, China contributed substantial sums toward supplies for Afghan refugees in Pakistan. This included a donation of 2 million RMB in August 2000; 2 million in April 2001; 10 million to Peshawar and 4 million to Lahore in October 2001; and 12 million in November 2001 (Dreher, Fuchs, Parks, et al., 2018; People's Daily, 2001). Readers will note the significant uptick following the American invasion of October 2001. Shortly after the invasion, a

PRC Foreign Ministry spokesman told reporters that “[a]s a friendly neighbor of Pakistan, we closely watch the domestic development in Pakistan. We hope to see a stable situation there. It is of vital importance to the Pakistani people and to the international fight against terrorism. Recently, we provided to Pakistan 10 million RMB yuan worth of commodity assistance” (United Nations, 2001). The commodity assistance was partially humanitarian in nature but also aimed at bolstering stability in a volatile situation on China’s western flank. The aid departed for Pakistan from Urumqi, the capital of Xinjiang, thereby reminding other parties of China’s stake in the situation (People’s Daily, 2001). In 2007, as the war continued, China reportedly offered a \$400 million grant to help repatriate Afghan refugees in Pakistan (Dreher, Fuchs, Parks, et al., 2018). All mention of this thereafter disappeared from the press, and it is not clear whether the funds actually went through. The United Nations High Commissioner for Refugees (UNHCR) was pushing Pakistan to allow Afghan refugees to stay unless they volunteered to return, meaning that there was a fairly defined ceiling in how many repatriations would actually occur.¹³ Still, the sheer intent to use up \$400 million demonstrates the depth of Chinese concern with the situation. Indeed, the exclusive use of grants for refugee-related aid speaks to China’s willingness to sacrifice resources to address the issue.

Attention to the refugee issue began to wane over time, and China’s efforts shifted toward Pakistan’s general domestic stability. In 2006, China helped set up Pakistan’s first DNA testing lab. According to the Pakistani Minister of the Interior, the “establishment of DNA lab is a major step in the on-going efforts of the ministry of interior to better equip the police and law enforcement agencies in their fight against crime, terrorism and public disorder” (Dawn, 2006). This trend toward a focus on law enforcement and counterterror outside the

¹³ Afghan refugees’ status in Pakistan has changed substantially since then. See Jamal (2016).

Afghan refugee communities was accelerated by the July 2007 attack at Islamabad's Lal Masjid (Red Mosque). Fifteen Uyghur PRC nationals were killed in the attack, and other Chinese citizens were taken hostage. China pushed for a military resolution to the hostage standoff, which did indeed happen and led to an end to a truce between the Pakistani government and the Pakistani Taliban. Small (2015, Prologue) sees this as a turning point in Sino-Pakistani relations. An attack in the heart of Islamabad hammered home the point that Afghan refugees were not the only source of instability in Pakistan. The attack may also be a reason that Chinese economic engagement in Pakistan remained at relatively low levels until the early- to mid-2010s.¹⁴ It also affected the content of development finance. In 2008, China provided drug-sniffing dogs (Dreher, Fuchs, Parks, et al., 2018). (Narcotic smuggling and terrorism are closely linked in the region.) In the same year, China Exim funded \$6 million in vehicle X-ray equipment. At 2.5 percent due over 20 years, this modest loan was not a grant but was also affordable even for a low-income state (Dawn, 2010).

The most prominent Chinese-backed law enforcement initiative in Pakistan, though, has been the Safe Cities projects, a series of networked security cameras in Pakistani cities. The first Safe City project began in Islamabad in 2010. The \$234 million contract was partially (\$124 million) backed by Exim at 2 percent interest over 20 years, with a five-year grace period (Dreher, Fuchs, Parks, et al., 2018). Pakistan only owed debt on just over half of the project, and this part at friendly terms. This came at the cost, though, of competitive procurement. The Chairman of the implementing Pakistani agency told a Senate committee that the "major share of repayment of interest on the loan was to be borne by the Chinese government" but that "Huawei was the sole company supported by them"

¹⁴Kugelman (2017, p. 20) writes that a 2014 Pakistani military offensive improved the security situation enough for some investors to return.

and “Exim Bank had linked funds for other projects with award of contract to the Chinese firm.” With little choice, the Chairman waived the usual bidding requirements, leading to the deal’s temporary halting by the Supreme Court (I. A. Khan, 2013). At the same time, China clearly had interests other than generating business for Huawei and was willing to reduce the effective interest rate even below the two percent being nominally charged. The first and most obvious is counterterrorism. The pilot of the Islamabad project included four cameras, one of which was near the Lal Masjid. An official of the implementing agency stated that the site of the attack in which Chinese had been killed “might be a serious trouble spot” (Ali, 2014). The expansion from 4 to 2,200 cameras has continued apace with implications for both routine law enforcement and government surveillance, with the latter in a bureaucratic position of strength. Despite being a law enforcement project, the Safe Cities are administered by the National Database & Registration Agency (NADRA), which manages the national identification system and citizen databases. Police can request access to records but do not actually own them (Ali, 2014; Chaudhary, 2018). Government monitoring of citizens is being prioritized over more traditional police work. This is part of a global pattern of export of the type of surveillance technology used in China proper, increasingly with the use of facial recognition and artificial intelligence (E. C. Economy, 2020; Hillman and McCalpin, 2019). In the Pakistani case, the provision of these tools at near-zero interest constitutes a form of diplomatic outreach that most of Pakistan’s democratic partners probably would not match.

The Safe Cities program has since been expanded to include eight cities, and events since then have suggested a third motivation beyond counterterrorism and diplomatic outreach (Hillman and McCalpin, 2019). In 2016, Huawei won an \$84.7 million contract to build a similar system in Lahore after terror attacks there. Pakistani technicians later discovered

unexplained Wi-Fi transmitters in the equipment and had Huawei remove them. This does not necessarily prove that anyone outside Pakistan was watching—companies sometimes add excess components to inflate costs—but it does raise the possibility that Chinese access to Pakistani surveillance data could have contributed to the highly generous financial terms (Kelion and Iqbal, 2019; Moss, 2019).¹⁵

Lastly, a 2008 satellite also straddles the line between development finance and security cooperation. Built by China's Great Wall, the satellite's construction and launch were funded by \$199 million in credits from Exim, as well as another \$12.8 million for ground control (Dreher, Fuchs, Parks, et al., 2018). The terms were the same as those for the Islamabad Safe City: 2 percent interest over 20 years with 5 years' grace. The satellite is being used to transmit television and Internet signals across all of Pakistan and may be profitable, but Exim is not claiming any appreciable share of the profits, and commercial interests are not necessarily the primary motivation (Pakistan Space & Upper Atmosphere Research Commission, 2011). Pakistan has been engaged in a space competition with India and at no point has come close to narrowing the gap between them. The country's first commercial satellite at least gave Pakistan the optics of having a presence in space, even if the satellite was built with very little local content (Manjoor, 2018; S. Siddiqui, 2012; Xilu [西陆], 2011). Great Wall may stand to profit in the future from maintenance contracts, but the real purpose of Exim's financial sacrifice was to cater to Pakistani strategic interests and signal China's enduring friendship.

¹⁵This is not an isolated incident. Huawei was found to be transmitting data from the Chinese-built African Union headquarters to Shanghai (Tilouine and Kadiri, 2018).

7.2.1.3 Overland Transportation: The Karakoram Highway, et al.

Transportation from western China to the Indian Ocean is a core Chinese concern in its relationship with Pakistan. This section will begin with the marquee cross-border Karakoram Highway and then will discuss more recent highway construction branching off from Karakoram and sometimes extending southwards to the coast. In general, China has used debt to cover higher-risk portions of projects central to its strategic interests but has allowed others to carry the financial weight elsewhere, sometimes with Chinese firms on board as contractors.

One of the centerpieces of Chinese policy in Pakistan has long been the Karakoram Highway from Kashgar in western Xinjiang to Abbottabad in northern Pakistan. Originally built in the 1960s and 1970s, construction across treacherous mountainous terrain cost over 1,000 Chinese and Pakistani workers' lives. From its inception, this was more of a strategic project than an economically viable one. Trade along the highway was never cost-competitive with maritime shipping except for perhaps some less-populated areas on either side of the border. At its peak, the highway never carried more than 10 percent of Sino-Pakistani trade (Small, 2015, pp. 99–100; T. Miller, 2017, Chapter 3). Small (2015) says of the road that:

[...] no logistical planner could expect to count on a reliably landslide-free supply route. But [the Karakoram Highway] “altered the balance of geographical politics on the subcontinent”, expanding the reach of the Pakistani government into previously inaccessible frontier regions, and consolidating Sino-Pakistani control over territory that India claims as its own. As the roadbuilding initiative was launched, [Pakistani President] Ayub Khan “was pleased to remark that in order of priority the first urgency was strategic and one of the immediate significance”. The “economic and commercial importance of the highway” was only “the second objective” for Pakistan. The same was true for China. The principal construction phase for the road closely paralleled the Cultural

Revolution, a period that was distinguished by very little normal economic planning. The largest centrally directed Chinese economic project at the time was the vast “Third Front” programme to develop an industrial base in the west of the country that could act as a strategic reserve in the event of war with the United States or the Soviet Union. The route, especially the development of the border-crossing at Khunjerab rather than the more obvious Mintaka Pass, was carefully devised to keep it further from the Soviet border. China’s sense of encirclement, vulnerability and isolation was acute, and Pakistan in the mid-1960s was one of the few countries that mitigated it. (106-107)

China’s “sense of isolation” takes on a different character today and is perhaps less acute, but it still exists. North Korea is still China’s only treaty ally, and Pakistan is a more reliable security partner. The threat of Soviet troops approaching from Central Asia has receded, but the threat of the American Navy at the Strait of Malacca has not. The Karakoram Highway’s utility as an emergency door for critical supplies still merits the expenditure from Beijing’s perspective. Pakistan still understands this: as recently as March 2020, the Pakistani Ambassador to Washington pointed out in a speech that from Kashgar, the distance to the Pakistani coast is roughly half that to the southern Chinese mega-port of Shenzhen (A. J. Siddiqui, [2020](#)).

While the original highway project had long been complete by the time China was a more globally consequential player in development finance, it has reentered China’s contemporary agenda in three different ways: repair, improvement of existing roadway, and extension to new places. First, Small’s comment about the lack of a “reliably landslide-free supply route” reflects actual events. A January 2010 landslide rendered a section of the road in far northern Pakistan impassable, even creating a small lake. The China Road & Bridge Corporation (CRBC) was brought in to do the repair work, receiving \$223.5 million from the Export-Import Bank of China (Exim) against a \$275.1 million budget (Dreher, Fuchs, Parks, et al., [2018](#); Pamir Times, [2015](#)). Even with most financing arranged from the home

country, it still took until September 2015 to finish repairs, which involved five tunnels and eighty bridges (Pamir Times, 2015; T. Miller, 2017, Chapter 3). Bank financing was necessary to push CRBC into a painstaking and potentially dangerous project.¹⁶

Independently of the repair work, China has been funding the overhaul and widening of the original roadway. This has been done in phases, all of which have been done by Chinese firms with some degree of state financial backing. The first stretch of highway represented \$490 million in revenues for CRBC, \$327 million of which came from Exim. The second, larger phase is supported by a \$1.315 billion loan and built again by CRBC. The third brought \$150 million to a consortium of China Railway and China Energy Engineering; this one was backed by an undisclosed mix of grants and loans (Pamir Times, 2015; Rafiq, 2017, pp. 10–11; Dreher, Fuchs, Parks, et al., 2018; CPEC Authority, 2020). The unusual use of grants for an infrastructure project is telling: keenly aware of Pakistan's fiscal limitations and the potential damage to bilateral relations therein, China makes an atypical overt sacrifice of wealth, albeit for the smallest section of road which it could most afford. The quantitative results suggested that grants would flow to geostrategically important countries, and loans to geostrategically important countries with high political risk. Pakistan meets both descriptions.

The third way in which the Karakoram Highway continues to have an impact on China's current development finance is via newer projects connecting its southern terminus to new destinations. The original highway reached Pakistan's populated northern areas but relied on domestic infrastructure to reach the coast. Contemporary Chinese efforts have focused on improving access from the Karakoram Highway to the coast. This includes a "western

¹⁶The main sources of risk here were as much ecological as political. This is different from the political risk included in the theory and quantitative testing and is less generalizable across many cases, but it has a similar net impact.

corridor” to a new Chinese-built port at Gwadar¹⁷ as well as an “eastern corridor” to the major coastal city of Karachi.

Along the western corridor, there is a clear division of labor based on project risk. It is telling that the southernmost stretch of the road leading to the port at Gwadar was done by the Pakistani military’s Frontier Works Organization (FWO) with Pakistani government funding (CPEC Authority, 2020; Reconnecting Asia, 2020). This passes through Balochistan, where separatist insurgent groups have carried out attacks on Chinese workers (and others). China had an interest in leaving this part of the project to the Pakistani military, which is much better equipped to handle local dangers than civilian engineering firms could be. For Pakistan, the highway could represent better projection of power into a province which, if not in actual danger of breaking away, does pose resistance. Details on segments of road further north are somewhat scarce, but at least two segments totaling \$597 million¹⁸ are being funded by Chinese loans (CPEC Authority, 2020). Further north, closer to the Karakoram Highway, the Asian Development Bank (ADB) and UK Department for International Development (DFID) have contributed \$161 million to a \$190 million¹⁹ road from Havelian to Burhan to be built by a joint venture including Gezhouba (Pamir Times, 2015; Rafiq, 2017, p. 13). This is significant in that China is currently planning a logistical “dry port” at Havelian for transshipment of goods traveling along the Karakoram Highway. Early plans are reportedly for \$65 million in debt financing from Chinese banks (CPEC Authority, 2020; Reconnecting Asia, 2020). DFID and the ADB are also exploring further collaborations in Pakistani infrastructure but have put greater emphasis on economic viability and feasibility studies (Asian Development Bank, 2018). The division of labor

¹⁷Maritime infrastructure is the subject of this chapter’s next section.

¹⁸96.036 billion Pakistani rupees.

¹⁹25,920.028 and 30,494.150 million rupees, respectively.

along the western corridor reflects incentives which face China in other contexts as well. The Pakistani government can be trusted to handle parts of the project, and others might be built by established development organizations. China judiciously uses debt to fill in the gaps—the Karakoram-connected dry port is a notable area with more significance to China than to others’—but no more than necessary.

This mix of actors exists in the eastern corridor as well, but is skewed more toward local firms. Only one segment of the Karachi-Lahore Motorway has been Chinese-funded. The Multan-Sukkur segment is funded with a \$1.3 billion loan from China and built by China State Construction Engineering. Another segment (Lahore to Abdul Hakeem) is being built by China Railway but with local funding. The rest is either locally funded or has not yet been tendered. The Karachi-Hyderabad section is being built by the Frontier Works Organization (Rafiq, 2017, p. 13; CPEC Authority, 2020; Reconnecting Asia, 2020). Connecting Pakistan’s two largest cities is economically an easy enough sell that local actors saw it fit to use their scarce resources there. Chinese firms were involved, but as often as not without funding from their home government.

Finally, a smaller, lesser-known road highlights the inverse case: China using more debt in cases of higher risk. In 2012, the Pakistani National Highway Authority (NHA) canceled a contract under which Gezhouba would have used a loan from Exim to build a road from Juglat to Skardu. Juglat is along the Karakoram Highway in the mountainous north; Skardu lies to the east of Juglat and is not far from the Line of Control, the *de facto* boundary separating the Indian-administered and Pakistani-administered portions of disputed Kashmir. The stated reason was lack of transparency in the bidding process, indicating that this had been a non-competitive bid (Road Traffic Technology, 2012). Gezhouba later returned to bid on the project and signed a new contract in 2014 (Nagri, 2015). There has been sub-

stantially less press around this project. Unlike the western and eastern corridor highways, it is not listed on CPEC's official portal, but it is included in a spreadsheet of CPEC-related finances away from the more immediately accessible part of the website. The spreadsheet indicates a \$138 million budget for "improvement and widening," of which \$124 million is listed as foreign-funded (CPEC Authority, 2020).²⁰ The amounts listed to the nearest rupee come out to exactly 90 percent foreign financing, which is consistent with the project-specific involvement of a foreign lender. While the project is not publicly confirmed, it appears likely that China is funding Gezhouba's contract to build a road to Skardu; it is unclear what other foreign power would be willing to step into the fraught politics of the Line of Control. The geopolitics of a road improving Pakistan's access to the Line of Control would scare away many companies, but guaranteed credit may at least ease their nerves.

Across the board, China mostly used its funds toward projects which were significant to its own geostrategic interests, and even then only where others like the Pakistani military, Asian Development Bank, and British government were not fulfilling these ends on their own. This was mostly done through tied loans in order to push firms into what were often high-risk projects but on one occasion partially deployed grants for the last stage of an increasingly expensive series of highway renovations. The next section finds a similar pattern for the maritime infrastructure being built up at the southern termini of the eastern and western corridors.

²⁰22,154.037 and 19,938.633 million rupees, respectively

7.2.1.4 Maritime Transportation: Karachi and Gwadar

Chinese firms have been involved in port construction and upgrading at three different sites. Two—Karachi and Port Qasim—are located in the Karachi metropolitan area, in the south-east, and were established ports long before China’s major commercial arrival. The third, Gwadar, was until recently a smaller community along the less-populated western coastline. This section contrasts the two. First comes China’s relatively limited participation in the established ports; second is its almost singlehanded construction of a new cluster of activity at Gwadar.

Chinese firms are known to have been involved in three upgrading projects at the Port of Karachi and Port Qasim, and none appears to have been funded by the Chinese government. As far back as 2008, China Water & Electric received \$177 million²¹ to dredge the ship channel at the Port of Karachi. In 2010, China Harbour Engineering earned \$168 million²² for a new quay wall at Port Qasim. These were both well before CPEC’s 2015 announcement and China’s major economic entry into Pakistan. In 2018, China Harbour added another \$164 million for two terminals at Port Qasim (Karachi Port Trust, 2020).

These deals may have been positives for Sino-Pakistani relations but were relatively low-profile. The two ports next to the major city of Karachi have less difficulty attracting business, and Chinese firms are among many different players. They also have less strategic significance than Gwadar, to the west. The idea of a port at Gwadar has been circulating for some time. The site was purchased from Oman in 1958 with an eye to its location near the Strait of Hormuz (Rafiq, 2017, p. 6). In the 1970s, the United States turned down an offer to build a port there; a British consortium signed a contract to do so in the 1990s, but

²¹ 19 billion rupees, converted to USD per Oanda (2020) at the contract completion date of December 2014.

²² 18 billion rupees, translated using the same methodology as the previous figure.

it later fell through (Small, 2015, p. 100). In 2000, Pakistani President Pervez Musharraf pitched the idea to President Jiang Zemin, the most powerful person in China at that point, and Premier Zhu Rongji, a leading figure in China's economic reform. Pakistan had its own reasons for doing so: this was not long after the Kargil War with India, and the specter of an Indian blockade of Karachi in the east added some appeal to the idea of a second, Persian Gulf-facing port in the west (Markey, 2020, p. vii).

China was originally less than interested. Markey (2020) writes that:

To Beijing, Gwadar looked like a big waste of money: a white elephant with little commercial necessity, disconnected from Pakistan's transit and communications networks and surrounded by impoverished fishing villages as well as, more menacingly, Baloch separatist groups waging a decades-long insurgency against the state. The Chinese side was so skeptical of Musharraf's proposal that more junior diplomats were immediately sent to ask their Pakistani counterparts whether Pakistan's leader was serious. (viii)

By 2001, though, while Zhu Rongji was visiting Pakistan, China changed course and formally agreed to go along with the plan. The terms were unusually lenient. China was providing \$500 million in grants and \$598 million in loans; Pakistan's government only needed to contribute \$50 million. To alleviate the concerns surrounding Gwadar's isolation from other major population centers, China added \$200 million in credit to build the Makran Coastal Highway running along the coast from Gwadar to Karachi (Dreher, Fuchs, Parks, et al., 2018). The Pakistani government added \$50 million of its own funds to the highway, and the Frontier Works Organization was involved in construction (Small, 2015, p. 101). The transfer of half a billion in wealth via a grant is still one of the largest one-off grants in China's history and is unusual even by today's standards, not to speak of the much less affluent China of 2001. This was an extreme case: China's closest diplomatic and security partner was making a request, and this not long after the leader took over in a

coup and felt short of legitimacy (Markey, 2020, p. vii). The contracting process was also exceptionally generous to Pakistani interests. Frontier Works Organization played a prominent role in construction of the highway. This was all despite the fact that as in the case of the Karakoram Highway, China was fairly upfront about its doubts about the project's commercial viability. China was eager to maintain good relations, wanted a share in an Indian Navy-resistant window on the Persian Gulf, or both.

The next wave of plans for Gwadar, though, do not indicate that China meant to monopolize the site. After the completion of the first wave of construction, China intended to add at least \$600 million in improvements including an oil refinery and a road inland to Quetta, but this mostly did not happen (Small, 2015, p. 101). This was at least partially because of friction with the port operators. The Port Authority of Singapore had been brought in to operate the port in 2007. The Singaporean state-owned organization anticipated making \$5 to \$8 billion in eventual investments at the site over its forty-year term as operator (Aziz, 2007). Like the second wave of Chinese construction, this did not happen as planned. Chinese diplomats' original concerns about economic viability were proving founded, and Gwadar was drawing very little traffic away from the two Karachi-area ports, which enjoyed access to a major market.²³ There were also problems with the water supply owing to underfunding in the local desalination plant (Kugelman, 2017, pp. 22–23). Seeing the financial writing on the wall, Singapore withdrew from the project; at this point, the port had reportedly not hosted a ship in four months (Small, 2015, p. 100; Markey, 2020, p. viii).

With a planned Singaporean presence in the billions of dollars, China was clearly not trying

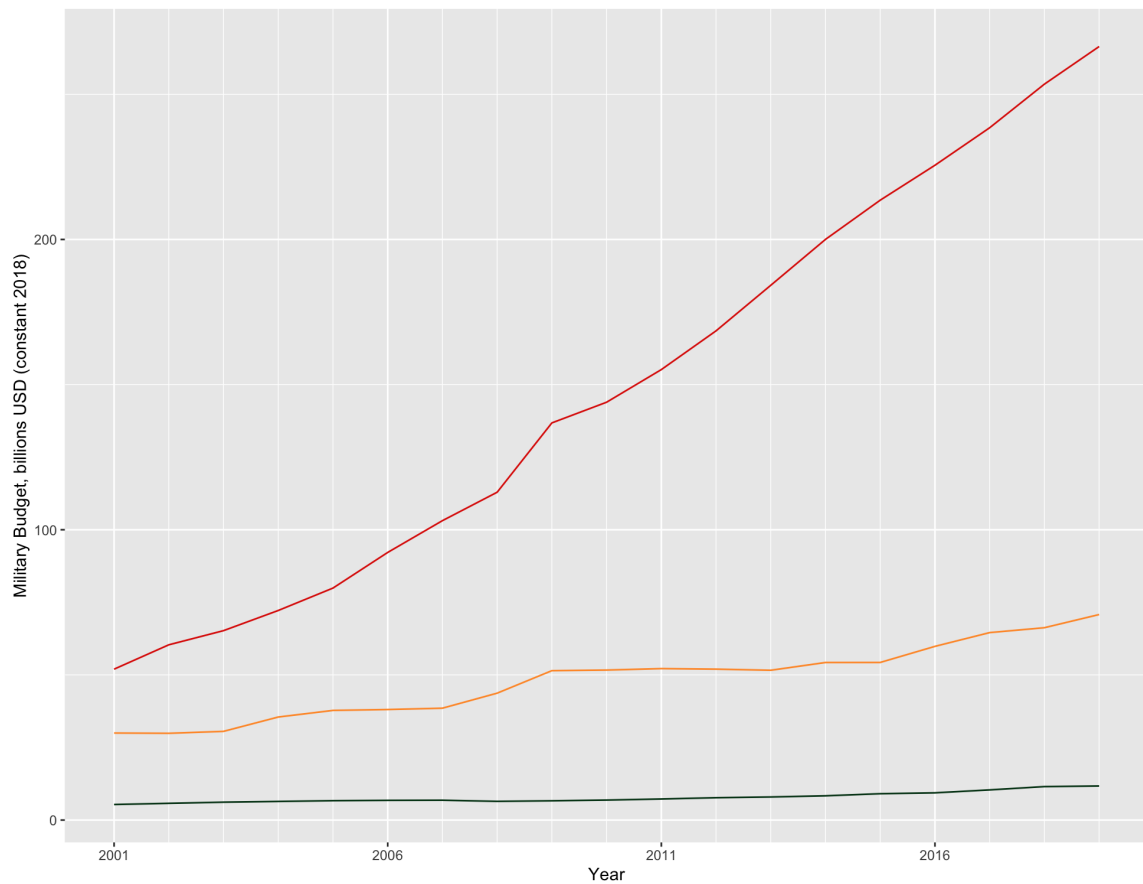
²³This is similar to the failure of the Chinese-built port at Hambantota, Sri Lanka, to keep up with the competition at Colombo. The Sri Lankan case will be discussed alongside other instances of distressed debt in Chapter 8.

to monopolize the Gwadar project, but it soon came to do so anyway. Singapore's departure left a vacancy at the same project which the United States had avoided and British interests had abandoned. This was not a financial winner. The Port of Authority of Singapore is a state-backed institution, but the Singaporean city-state bears no pretense of extra-regional power projection and was not inclined to pour further resources into a financial bottomless pit. Time dragged on, and it was not clear that any other third parties were willing to invest in the port. At the same time, Chinese security policy was changing. Some of this was due to a secular upward trend in China's military strength. Figure 7.4 shows that while China has always had a lead in regional military spending, its advantage has grown enormously since the 2001 agreement to build Gwadar. Stationing troops overseas is no longer an impossibility; indeed, in January 2016, China announced its first overseas base in Djibouti (Chappell, 2016).²⁴

In September 2015, not long before the January 2016 Djibouti deal, China formally entered the void left by Singapore at Gwadar. The China Overseas Port Holding Company (COPHC) spent \$1.62 billion to buy a forty-year leasehold on the port (American Enterprise Institute, 2019; Markey, 2020, p. viii). COPHC is something of a mystery. It was created specifically to manage Gwadar and claims to be registered in Hong Kong, but investigative journalists have found that its "shareholders" in Hong Kong are themselves shell companies with the appearance of engagement in various industries but no sign of actual activity. All are registered to the same address in Hong Kong (Business Recorder, 2018; COPHC Pakistan, 2015; Y. H. Khan, 2019a). Several experts interviewed for this dissertation privately viewed it as a fig leaf for the Chinese government or the Ministry of Defence.

²⁴This was part of a major trend toward greater assertiveness in Chinese foreign policy which also involved more incursion into disputed waters of the East and South China Seas and building artificial islands in the South China Sea.

Figure 7.4: Estimated Defense Budgets of China, India, and Pakistan, 2001-2019



China in Red; India in Orange; Pakistan in Green

Based on data from Stockholm International Peace Research Institute (2020).

Indeed, China is home to several of the world's largest shipping companies, and it is not clear why a special-purpose company would be set up for Gwadar unless the site was seen as unique in some way. While the value of a window on the Persian Gulf far from Indian waters is obvious,²⁵ there is no real evidence that Gwadar is going to be a fully functional naval base for China or Pakistan either one in the immediate future—the state of infrastructure simply would not support it. The long-term possibility, though, is there (Iwanek, 2019). Any future presence of Chinese forces would obviously require Pakistani approval. Given the skepticism with which many members of the Pakistani public view China and the fact that Balochi separatists have already carried out attacks on Chinese workers in Gwadar, this would be a politically difficult decision for the Pakistani leadership to make. It may also expose Pakistan to unwanted involvement in a potential Sino-American conflict. Beijing thus faces two interrelated sets of incentives at Gwadar: 1) quantitatively, to put up as much money as is necessary to build the project, especially in the absence of other potential backers; and 2) qualitatively, to do so on as favorable terms as possible so as to maximize the chances that Pakistan would ever agree to a base.

A revamped Phase II of port upgrading is now underway. The Chairman of the Gwadar Port Authority has told reporters that he expects development of the site to take twenty to twenty-five years, indicating longer-term and probably larger-scale ambitions (Y. H. Khan, 2019b). In the near term, though, China's efforts to develop the site have been more modest and perhaps less of a financial burden. Funded mostly by loans at a generous 3 percent interest rate, China is progressively adding a \$786 million series of improvements to the port (Butt, 2015). These include a \$123 million breakwater, some undisclosed proportion

²⁵Small (2015, pp. 102–103) points out that the U.S. Navy could perhaps more easily blockade Gwadar than the Strait of Malacca. This would suggest that a potential base would be more useful for local contingencies in the nearby Persian Gulf than for a conflict with the United States.

of which is grant-funded; \$27 million for dredging, backed by a \$22.3 million Exim loan; \$140 million for a highway connecting the site of the port to the existing road from Gwadar to Karachi; \$230 million for an airport; and \$114 million for water treatment (CPEC Authority, 2020; Dreher, Fuchs, Parks, et al., 2018; Haider, 2015).

These have undergone changes in the financing terms over time. Figure 7.5 shows that Pakistan's government debt burden fell significantly following an IMF restructuring in the early 2000s but began to creep up afterwards. By 2015, there was some concern that debt could begin to rise to less sustainable levels, and the track record since then has proven these concerns founded. At this point, China agreed to lower the interest rate on these loans from 3 to 1.6 percent. This includes both the aforementioned Gwadar projects and the \$1.3 billion Chinese-funded stretch of the Karachi-Lahore Motorway. Some of the Gwadar projects were actually even further discounted. The expressway connecting Gwadar to the main highway (\$140 million) was converted into a zero-interest loan, with any outstanding interest permanently written off. The airport (\$230 million) was turned into a grant (Butt, 2015; Haider, 2015). Clearly, China was willing to act quickly to preemptively avoid any bilateral frictions due to debt. The gift of a quarter-billion dollar airport is particularly unusual. At the same time, China is adding on to a local hospital with a \$100 million grant and building a new vocational school with a \$10 million grant (CPEC Authority, 2020). Rafiq (2017, p. 16) refers to these (along with the water treatment plant) as "goodwill projects," and along with the atypically high grant content of the infrastructure projects reflects the geostrategic significance of this particular cluster of activity. There were some commercial interests involved as well—southern China's Zhuhai Port Holding was brought in to do much of the construction work—but from Pakistan's perspective these were still clearly favorable terms (X. Zheng, 2015).

Figure 7.5: Pakistani Central Government Debt as Percentage of GDP, 2000-2018



Based on data from Mbaye, Moreno Badia, and Chae (2018).

Even with the preemptive Chinese relief, Pakistan's debt did begin to climb. Most of this did not have all that much to do with Gwadar, but some of the solution did. In January 2019, Saudi Arabia committed \$20 billion in new financing to Pakistan, including \$10 billion for a refinery at Gwadar. Around the same time, the UAE sent \$3 billion to Pakistan's central bank to help with foreign exchange pressures (Yousafzai, 2019). The Persian Gulf states have their own stake in the success of Gwadar as a point of entry for their energy exports. This serves as a reminder that Pakistan does have agency in how the port at Gwadar is used. Chinese or any other access to the facility would require continued robust economic (and security) outreach, and even this is no guarantee of success.

Overall, Chinese money was not necessary to enhance the ports near Karachi but was indispensable for the less economically viable but geostrategically better-located Gwadar complex. To ensure Gwadar's success with minimal strain on Pakistan, China also showed a fairly impressive willingness to lose money through grants, debt write-offs and write-downs, and very low interest rates on loans. This is similar to what happened in the road sector. Later phases of the strategically important Karakoram Highway overhaul were completed on a partial grant basis. Other strategically important roads were handled by Pakistani or third-party interests, though, and China only involved itself financially in the toughest ones. The same pattern can be found in a third area with geostrategic implications: telecommunications.

7.2.1.5 Communications and Technology

China's engagement in Pakistan's communications and technology sectors mirrors that in the highway and port sectors: direct state involvement in strategically important projects, but more arms-length transactions elsewhere. Specifically, a fiber optic cable connecting

the Chinese border to Pakistan's coastline received a loan, while most other projects have been undertaken on more market terms. I first cover the market-based projects, which came first chronologically.

Chinese corporate interests made an early entrance into Pakistan in mobile communications. In 2006, Huawei landed a \$550 million contract to build a 3G network for Ufone (American Enterprise Institute, 2019; Huawei, 2006). The following year, China Mobile purchased Paktel, Pakistan's fifth-largest mobile provider, for \$464 million.²⁶ This was China Mobile's first overseas purchase, which has some symbolic value for the Sino-Pakistani relationship (Small, 2015, p. 108). At the same time, this was one of many similar investments both by China Mobile and competitors. China Mobile itself added \$500 million in investments in 2009, \$520 million in 2014, and \$200 million in 2017 (American Enterprise Institute, 2019). Then, China Mobile's local affiliate Zong competes with Russian-owned Jazz, Norway's Telenor, and Pakistan's Ufone for market share (A. J. Siddiqui, 2020). In a sign of intra-Chinese competition, Huawei built Ufone's 3G network, and ZTE built Telenor's (Telecom Lead, 2012). These were essentially market-based deals. They may have benefited Pakistan through better cellular service, lower prices to consumers, and royalties paid to the government, but this does not appear to be the result of a coordinated Chinese government strategy.

More recently, Alibaba has also entered Pakistan on its own terms. Its fintech subsidiary Ant Financial in 2018 bought a 45 percent share of Telenor Microfinance for \$184.5 million (American Enterprise Institute, 2019; Z. Khan, 2018). This had the aim of leveraging Alibaba's domestically honed expertise in increasing popular financial access and handling remittances from overseas, but only in the context of a "strategic partnership" in which the

²⁶This was \$284 million to buy a majority stake up front and \$180 million later to buy the remainder of the company's shares (Small, 2015, p. 108; American Enterprise Institute, 2019).

Norwegian partner would continue to hold a majority stake (Geng, 2018; He, 2019). In that same year, Alibaba paid \$150 million to buy Daraz, a Pakistan-based South Asian e-commerce platform, from Germany's Rocket Internet (American Enterprise Institute, 2019; Russell, 2018; Sheahan, 2018). This amounts to horizontal expansion into new markets for Alibaba's core business and does not have any overt connection to a Chinese government strategy.

These more marketized transactions stand in contrast to one strategically important tied loan. A fiber optic cable from western China to Gwadar is the digital equivalent of (partially) Chinese-built above-ground highways, providing an alternate route for communications in the event of disruptions elsewhere. Valued at \$37.4 million, the cable is not particularly expensive but did receive 85 percent financing from Exim at the highly favorable interest rate of two percent (Butt, 2015; Markey, 2020, p. 63). As for the highways, China wanted to ensure digital connectivity between Gwadar and the Chinese mainland and was willing to commit debt resources to counteract the risks of building across topographically difficult and (in parts) politically unstable territory. Huawei is building the cable and is also involved in two future projects: a cloud data center agreed to during Pakistani Prime Minister Imran Khan's 2019 visit to Beijing and a 5G network to be built with China Mobile. Financing details for these new projects are not yet known as of this writing (Huawei, 2018; Moss, 2019).

Finally, CPEC's register of projects also includes a \$4 million grant toward a pilot project for digital television broadcasts (CPEC Authority, 2020). The use of a grant may reflect China's desire to make sure that influence over the airwaves remains a possibility, although it may also reflect the low financial costs involved. This is similar to the larger television projects in Africa and is worth watching for the future.

China's geostrategic concerns in Pakistan are concentrated in the transport and communications sectors, which in absolute terms are a minority of CPEC expenditures. A majority belongs to the power sector; other areas such as water treatment and agriculture play supporting roles. These areas typically cater more toward Pakistan's own interests, or occasionally to those of third-party funders like the Asian Development Bank. As such, China engages in them either for mostly commercial reasons on relatively strict terms or on laxer terms as a favor to an important partner. Deals on either end of this spectrum can be found in the power sector, the largest focus of CPEC's earlier projects and the topic of the next section.

7.2.1.6 The Carrot: Electricity Generation

Pakistan's electricity shortages detailed earlier in this chapter are a significant source of popular discontent and a domestic political issue. Demonstrations surrounding the issue took place in the early 2010s. In response, Prime Minister Nawaz Sharif (2013-2017) made electricity a part of his campaign platform. His tenure coincided with China's purchase of the concession at Gwadar as well as the 2013 inauguration of the Belt and Road and the launch of CPEC itself. While China was mostly interested in a "strategic backdoor" from Xinjiang to the Indian Ocean, Sharif and Pakistan were more interested in electricity (E. Downs, 2019, pp. 13–14). Given China's domestic strength in building up power capacity and its interest in offshoring some older, more polluting generation capacity, there was a natural coincidence of interests.²⁷ The bulk of CPEC's earlier projects have thus been in power generation (Rafiq, 2017, pp. 10–11).

²⁷Experts have expressed some doubt that new capacity coming online will do all that much to address Pakistan's underlying problem with the effect of subsidized pricing on power producer financial viability. Nevertheless, the optics of new power plants are good for elected officials. See Kugelman (2017, p. 19) and Markey (2020, pp. 58–59).

There is useful variation both across and within the different types of power generation. The cornerstone of CPEC's early stages has been thermal generation, mostly using coal. Fast-moving coal projects are politically expedient for a Pakistani leadership intent on showing its worth domestically by quickly improving the electricity situation and are also a priority for a Chinese coal sector suffering from domestic overcapacity. I begin with thermal plants by looking at variation between more internationalized projects with greater financial viability and less viable projects in which China has put greater resources as a carrot to the Pakistani leadership. I then look at hydropower and other renewables, which tend to move more slowly and have been proportionately more often implemented at arms-length from the Chinese state. I conclude with the special case of nuclear power, for which the politics of nonproliferation plays a diplomatic spoiler role not present in less politically sensitive sectors.

Fossil Fuels Coal contributes significantly to carbon emissions and China's major air pollution problem, and the government aims to diversify toward greater use of cleaner power sources like natural gas and renewables.²⁸ At the same time, there remains more capacity to produce coal generation equipment in China than the authorities could or desire to use. Faced with a shrinking market at home, companies look abroad, sometimes with government assistance where the risk requires it and the number of jobs at stake merits it. From the Chinese perspective, then, there is an incentive to be tough on Pakistan in order to preserve the beneficial impact of coal-sector employment on domestic stability. Factors within Pak-

²⁸The trend so far has been that China's domestic coal capacity is still increasing in absolute terms but as a shrinking share of new capacity (E. Downs, 2019, pp. 24–26). There is an active debate as to how far China's turn away from coal will go or to what degree it will be kept up. (Joanna Lewis, forthcoming.) Either way, coal plants now coming online in China tend to use newer, cleaner technology, while older, dirtier (and less politically connected ones) have been shut down. (Denise van der Kamp, forthcoming.) This opens the door to outsourcing of the biggest polluters to other countries. See also Y. Wang and D. Li (2019).

istan, though, might push China in the opposite direction. Coal is the fastest, cheapest way to generate large amounts of electricity within a political cycle; hydroelectricity and other renewables, while fully workable in Pakistan's mountains and deserts, take more time to come online and are thus less politically useful (E. Downs, 2019, pp. 24–29). Pakistan also wants coal for its own energy security purposes. It currently relies heavily on imported fuel oil from the Persian Gulf and hopes to replace it with its historically little-utilized domestic coal deposits in the Thar Desert (National Electric Power Regulatory Authority, Pakistan, 2015, p. 5). The quality of the coal there is such that many major multinationals have remained skeptical, but domestic companies or Chinese firms with government backing might be persuaded to take the plunge. (Or, at the very least, Pakistan could import cheaper high-quality coal instead of more expensive fuel oil.) (Ebrahim, Kugelman, and Small, 2016; Rafiq, 2017, p. 19) China faces incentives to provide coal plants on more favorable terms in order to amplify the benefits to bilateral relations of providing a political win to the Pakistani leadership.

Which of these incentives wins out—stricter terms in order to help Chinese firms deal with their domestic overcapacity issues, or laxer ones to provide China's Pakistani partners with a domestic political boost—depends on the exact contours of the projects involved. I find that the projects can be sorted into four basic categories. First is an early, pre-CPEC project notable for its heavy use of debt. As the only clearly pre-CPEC item analyzed, this is a sort of control case for what happened before Chinese incentives for favors to Pakistan were quite as strong. Second is a contemporary grouping of mostly large, internationalized plants along the coast running on higher-quality imported coal. Due to their better prospects, these typically drew more Chinese and other foreign equity investment. A third cluster of activity in the Thar Desert, on the other hand, uses lower-quality domestic coal and is

significantly motivated by the Pakistani leadership's desire to curb fuel imports. The Thar projects could in some instances be considered products of political interference in the power sector and on average carry higher levels of risk, but are they also more valuable to bilateral relations than the import-burning plants. Because of these competing priorities, Chinese organizations have here found a middle ground between the hands-off approach of the earliest projects and the highly engaged coastal plants. Then, fourth are two large transmission projects. These were held up at one point because of a dispute over pricing—a hallmark of political risk in Pakistan's power sector—but have gone through with the help of Chinese banks. This demonstrates the value of debt as a fallback when absolutely necessary. Chinese banks were less involved in power generation and did not feel the need to intervene if a power plant was failing: the sheer number of plants being built meant that it was not worth the financial sacrifice or potential bilateral tension of using to debt to prop up a weaker one. Transmission upgrades from the new power-producing areas, on the other hand, were indispensable to the entire power upgrading initiative, which in turn was the focus of CPEC's earlier wave of activity. China felt the need to ensure the transmission project's success even at significant cost. I sequentially look at each of these four categories.

First, the power plant at Guddu is an early example of Chinese engagement. Although located in the coal-rich Thar Desert, the Guddu plant actually uses production from a nearby natural gas field. Construction was begun (in 2009) and completed (2014) before CPEC formally existed, and so Guddu has not been as politicized in the context of Sino-Pakistan relations. So, the terms were not particularly generous. The \$602 million project was 85 percent funded by a loan from China Exim (American Enterprise Institute, [2019](#); Associated Press of Pakistan, [2014](#); Dawn, [2009](#)). This did not imply any type of long-term

commitment by the Chinese contractors; to the contrary, USAID is contributing to repairs and maintenance on the site (United States Agency for International Development, 2013a). Before Pakistan's geostrategic location began to figure quite as much into Chinese strategy, the terms of financing were relatively less forgiving.

This changed in the mid-2010s with four plants using imported coal. First was the Sahiwal coal plant. It is not clear that Sahiwal began as a conscious Chinese government strategy to reach out to Beijing. China Western Power originally agreed to build the plant in 2013 but withdrew the following year (H. A. Siddiqui, 2017). The reasons for its departure are not clear, but this indicates that the deal was either not being actively pushed by the Chinese government or was not being pushed hard enough to incentivize China Western. After China Western's departure, a 50-50²⁹ joint venture of Huaneng Shandong and Shandong Ruyi took its place (The News International, 2015). The large project received \$1.44 billion in loans from the Industrial and Commercial Bank of China (ICBC) (E. Downs, 2019, p. 36). At the same time, the Huaneng Ruyi joint venture also took an equity stake of \$150 million—not much in comparison to the total budget, but certainly more than had been taken at Guddu, and still a continued commitment to the plant's smooth functioning (American Enterprise Institute, 2019). Since the loan was from commercial lender ICBC, Pakistan also had more leeway to select contractors than might have been the case with a loan than from policy banks Exim or CDB with their strict procurement rules. Pakistan bought forty locomotives from General Electric to move coal from the coast to the inland Sahiwal site as well as to another plant (General Electric, 2017). This part of the project did not appear to be covered by the ICBC loan, but had Exim or CDB funded the railcars, it is a safe bet that a Chinese firm would have provided them. The Sahiwal plant was still

²⁹This was reported in some sources as a 51-49 split, but SEC filings at Huaneng Power International (2016) indicate an even 50-50 divide.

under construction when CPEC was announced but was retroactively designated as part of the initiative, indicating a degree of political benefit to go along with the slightly more generous terms (CPEC Authority, [2020](#)).

Sahiwal's location in populous Punjab puts it near major consumer markets but away from the coast and thus coal shipping. Two other projects avoided the need for rail to carry freight inland and built along the coast. These were slightly larger than the inland site but are mostly distinct in Chinese and other foreign firms' willingness to make major equity investments in them. First came a coal plant at Port Qasim, begun in 2014. Located in Karachi, Port Qasim enjoys access to both a major consumer market and the coast. Of its \$2.085 billion budget, 75 percent (\$1.564 billion) was funded by a loan from Exim. The remaining \$521 million in equity is split between Sinohydro (51 percent) and Al-Mirqab Capital (49 percent), which is partially owned by the sovereign wealth fund Qatar Investment Authority (PowerChina [中国电建], [2015](#)). The share of debt financing continued to creep downward from 85 percent for the Guddu gas project, to 80 percent for the inland Sahiwal coal plant, to 75 percent for the coastal Port Qasim project. This correlates well with to what degree projects were aimed at political incentives to promote energy self-sufficiency in Pakistan's interior versus market incentives to rely on imported coal; indeed, the feasibility study for Port Qasim makes it clear that domestic coal from Thar has high enough sulfur and lime content that "it is difficult [...] to meet the quality standards from the industrial clients" (PowerChina, [2014](#), pp. III–5). Qatar's near-equal ownership stake further indicates an expectation of profitability beyond that necessary to attract Chinese stimulus funds, and the financial arrangement puts proportionately less strain on Pakistan's state budget than the previous two plants. Lest Chinese interests be forgotten, Exim's involvement means that most of the contract value necessarily went to Chinese businesses, which

in this case included Harbin Electric and Dongfang Electric for the plant proper and majority owner Sinohydro for a coal importation dock (Ebrahim, 2019; Power Technology, 2020d). The favorable economics of the Port Qasim project allowed China to put excess industrial capacity to work at less risk to relations to Pakistan.³⁰

In 2015, a second coastal plant was announced, this time on the outskirts of Karachi. The “Hubco plant,” so called after the Pakistani investor, drew relatively similar terms to Port Qasim. The \$1.912 billion budget was again 75 percent debt financed, although this time from a wide consortium of banks led by CDB but also including Exim and three of the four largest commercial banks (Xinhua, 2017b; E. Downs, 2019, p. 15).³¹ Of the remaining equity financing, China’s State Power Investment³² holds 74 percent to Hubco’s 26 percent and has further provided a \$300 million shareholder loan on top of the roughly \$1.5 billion on offer from the CDB-led consortium (American Enterprise Institute, 2019; Business Recorder, 2017). The name of the project places credit on Hubco’s shoulders, but China is doing much of the heavy lifting. This has not implied, however, purely dictating terms. The main contractors were China’s Northwest Electric Power Design Institute and Tianjin Electric Power Construction Company, but boilers were provided by General Electric (Kugelman, 2017, p. 22; Power Technology, 2019a). This is clearly atypical for a plant described by the joint venture CEO as “the first overseas thermal power project developed by State Power Investment Corporation under the Belt & Road Initiative” (Power Technology, 2019a). In 2020 remarks to a Washington audience, the Pakistani Ambassador to the United States commented that China had allowed the use of GE equipment at Pakistani insistence

³⁰Port Qasim is currently in financial trouble, but this is due to an uptick in coal prices which the relevant parties may not have anticipated (Ebrahim, 2019).

³¹Namely, the Bank of China, China Construction Bank, and ICBC. The fourth of the “Big Four,” the Agricultural Bank of China, tends to be more domestically focused.

³²State Power Investment was known as China Power Investment until a 2015 merger, and the original Hubco deal was agreed to under the old name.

(A. J. Siddiqui, 2020). It is unclear whether he was referring to the Hubco plant or other similar instances discussed later in this chapter, but either way, Pakistan was able to exercise some agency. Again, a combination of lower project risk and preexisting incentives to curry favor with Islamabad led China to adopt a more accommodating stance.

Most recently, a gas-fired plant at Bin Qasim, near the Port Qasim coal plant, is currently in its early stages. Harbin Electric and Germany's Siemens are the primary contractors on the \$650 million project, which uses imported gas brought in by sea. The Bin Qasim station is owned by Pakistan's K-Electric. While Chinese firms are not active investors in this project, the risk was manageably low enough that they did find space to earn a share of contract revenues (Dawn, 2019; Power Technology, 2020a; Siemens, 2019).

A would-be fifth plant is the exception that proves the rule of the commercial viability of these coastal facilities. Like Port Qasim and Hubco, the Gadani plant would have also been located near Karachi and would have used coal imported on a purpose-built jetty. The primary difference, though, was its scale. The \$5.16 billion projected price tag for ten separate reactors raised eyebrows, especially since other new capacity was already coming online. The jetty alone was to cost around \$1 billion, and China was reportedly not interested in paying for it. Even after downsizing to four planned reactors, the project was eventually scrapped (Rafiq, 2017, pp. 17–19, 56). Chinese firms were willing to make long-term, majority investments in Pakistani power plants, but only when appropriately sized for the market.

The mostly coastal import-burning plants can be contrasted with another cluster of activity using coal from Pakistan's Thar Desert. Financial arrangements for the Thar plants represent an intermediate between China's pre-CPEC loan-based activity and the equity-heavy plants burning imported coal. This is because of mixed incentives. These projects present

higher financial risk, meriting stricter terms; but also greater benefits to diplomatic relations, meaning laxer ones. As the feasibility study for Port Qasim made clear, Pakistan's domestic coal is of lower quality and is less popular with investors. However, another official Pakistani document outlines the positives to Pakistani policy priorities of greater domestic coal usage:

The existing energy mix of the country is heavily skewed towards the costlier thermal Generation Facilities/Power Plants, operating on Imported Furnace Oil. The Import of Furnace Oil not only creates a pressure on the precious foreign exchange reserves of the country but also causes an increase in the consumer end tariff. The increase in the consumer end tariff not only results in higher inflation but it also affects the competitiveness of the local Industry with its foreign peers. In order to address the said issues, the Authority considers it imperative that efforts must be made to change the energy mix based on relatively cheap fuels. (National Electric Power Regulatory Authority, Pakistan, 2015, p. 5)

Imported coal trims Pakistan's current account deficit relative to imported oil, but not as much as domestic coal. A shift toward domestic fuel sources makes sense from a Pakistani government point of view but might come across as political interference in markets to investors. This puts Chinese organizations in a dilemma between contributing to a national priority of a major partner—best done via equity, which puts less financial burden on Pakistan—and protecting their own financial interests via debt. The result was hedging between the debt-heavy strategy seen before CPEC and the greater use of equity for the coastal plants.

The first of the Thar Desert plants in which China was involved was the Thar Block II station, an integrated mining and generation project. The World Bank was at one point looking into the possibility of backing this project but opted out in 2010, reportedly over concerns regarding the relocation of local communities. This left a void which took several years to

fill. After finding few takers, a 2014 agreement finally established a joint venture led by the Pakistani conglomerate Engro. The project drew several new investors over time, and the ownership structure differs between the mine and power plant. The mine is majority (52.1 percent) owned by the Sindh provincial government, with the remainder dispersed across Engro (12.8 percent); the Pakistani business conglomerate House of Habib (12.8 percent) and the affiliated Habib Bank (9.5 percent); power generator Hubco (8.5 percent); and the China Machinery Engineering Corporation (CMEC) (4.3 percent) (Ahmadani, 2018; Embassy of the People's Republic of China in Pakistan, 2018d; Sindh Engro Coal Mining Company, 2020). The power plant is owned by Engro (50.1 percent); CMEC (35 percent); Habib Bank (9.5 percent); and Liberty Mills (5.4 percent), a Karachi-based industrial group (Embassy of the People's Republic of China in Pakistan, 2018d; World Bank, 2019b). For both components of the project, the relevant Chinese firm is a minority owner, but in a much more substantial way for the power plant. The same goes for the Pakistani private sector: the power plant has no direct Pakistani state ownership, while the mine is majority state-owned. This may reflect a greater vote of confidence in demand for electricity than in the use domestic coal specifically. Budgeted at \$995.4 million, the power plant has received \$621 million in credit from Chinese banks, evenly split between one policy bank (CDB) and two commercial banks (the China Construction Bank (CCB) and ICBC). It has also received another \$210 million from a grouping of eleven different Pakistani banks (World Bank, 2019b). This means that the power plant is majority Chinese-financed, but a relatively soft majority at 62.4 percent of total project value. (Single-source Exim and CDB loans typically cover 80 to 85 percent of costs.) It is also not overwhelmingly Chinese-built: while CMEC was the primary contractor, it procured boilers from (again) General Electric (Power Technology, 2020c). This is a hybrid of China's more typical tied loan and equity arrangements. CDB did provide financing bound for a Chinese firm, but only as a

minority partner next to less constrained Chinese commercial and Pakistani banks. So, the contracting process was more open, leading to non-purely Chinese procurement, and the debt burden to China was proportionately lower than the usual for CDB or Exim. Some of the shortfall from the lack of debt financing was made up by equity investment by the contractor itself, but only as a minority stakeholder and not to the same degree as for the coastal power plants.³³

Thar Block II began operations in 2019, and as of this writing a new set of nearby plants are in their earlier stages (Power Technology, 2020c). Two which had originally been designated as the second phase of Thar Block II are now standalone operations under construction (Global Energy Monitor, 2019). The Thar Energy Limited (TEL) and Thalnova plants are budgeted at \$497.7 million apiece, with CMEC continuing from Thar Block II its role as the primary contractor. The ownership and financing structures are not identical between the two but both follow similar patterns to Thar Block II with minority CMEC ownership and partial Chinese financing. TEL is majority owned by Pakistan's Hubco (60 percent) and Fauji Fertilizer (30 percent), with CMEC rounding out the remaining 10 percent (Daily Times, 2020; The News International, 2018). The power plant is funded by \$262 million in credit from the China Development Bank, with the rest of the project's debt coming from Pakistan's Habib Bank (E. Downs, 2019, p. 15). Local funding has left some leeway for Pakistani (and American) agency in the procurement process, with General Electric again securing \$60 million in contracts to provide boiler equipment to be installed by CMEC (World Coal, 2018). Thalnova is similarly 10 percent owned by CMEC, with the remain-

³³Financing details are only partially confirmed for the mine. E. Downs (2019, p. 15) puts the budget at \$1.47 billion for the mine alone. Per the Associated Press of Pakistan (2015), China's total lending was \$1.2 billion across both the mine and the power plant. Loan details for the mine were never published, but given \$621 million for the power plant, this would imply roughly \$579 million for the mine, or under half of the \$1.47 billion budget.

der dispersed across several different Pakistani groups led by Hubco (37.5 percent).³⁴ Financing for Thalnova also involved CDB and Habib Bank but also brought in two Chinese private banks, Zheshang and Minsheng (Global Energy Monitor, 2019; Sinomach, 2019). In this instance, the contracting Chinese firm took a small equity stake—enough to indicate the intent of long-term presence, if not all that much in the way of project financing. Debt made up the difference, but involving two private banks with no requirements for the use of Chinese contractors and only a limited track record in overseas projects of this nature. Like Thar Block II, its two successor plants both deployed hybridized elements of tied lending and equity investment.

Three projects exhibit variation from this overall trend. One exhibits greater Chinese commitment, and two show less commitment. First, Beijing Jingneng has bet big by taking a 78 percent stake in a planned “mine mouth” plant—a coal plant next to a mine—with another 9.9 percent belonging to a Sinohydro subsidiary. The remaining 12.1 percent, though, belongs to the UK’s Oracle Energy (Mir, 2018). Investors in the other Thar coal projects were notably all either domestic or Chinese. The presence of a firm from a third country could be taken as a multinational “vote of confidence” akin to the Qatari stake in the Port Qasim coal plant. Chinese and multinational—in this case, British—investors appear to have made similarly favorable risk-reward calculations for this project.

On the other hand, two projects have taken place with less direct Chinese involvement; one of these has gone through with a Chinese firm involved as a builder but not owner, and another has been canceled altogether. The project which is still happening is another mine mouth plant 100 percent owned by Pakistan’s Siddiqsons. Siddiqsons originally hired Harbin Electric to build a plant along the coast in the vicinity of Port Qasim, but the \$262.5

³⁴This does not account for 20.5 percent of the shares whose ownership is unknown. See Global Energy Monitor (2019).

million contract was transferred to CMEC when the project was moved inland to be closer to the fuel source (American Enterprise Institute, 2019; ET News, 2018; Sinomach 【国机集团】, 2018; Zawya, 2018b). The plant is domestically funded, meaning Siddiqsons has discretion to make such decisions as it sees fit (National Electric Power Regulatory Authority, Pakistan, 2018, p. 8). The competition between Chinese firms would also seem to indicate that the involvement of the government in Beijing in securing contracts for them was limited at most. Here, local capital presented an opportunity for Chinese firms, which needed to neither buy equity stakes nor use loans to bring the project to fruition.

The inverse took place at the Salt Range project. Originally to be built by CMEC, the Chinese contractor withdrew from the \$590 million initiative over a dispute with the local authorities over electricity tariffs. Pakistan's subsidized electricity prices can be hard on producers (Kiani, 2016a; Rafiq, 2017, p. 17). The Chinese government could have responded to price risk by propping up CMEC with debt, but this could have later created a diplomatic issue if the project predictably lost money and the Pakistani government could not afford to pay for it. CMEC's withdrawal was in the long run probably better for Sino-Pakistani relations than a loss-making white elephant would have been. The diplomatic costs of debt are only worth it where there are clear benefits to compensate.

This brings us to the last category of power sector financing: transmission. None of the above plants are useful without improved transmission infrastructure to handle the additional output. Plans are underway to build power lines from both the coastal and Thar Desert plants northwards to the Lahore and Faisalabad metropolitan areas. Like the Salt Range project, the transmission lines were at one point held up because of a disagreement over tariffs between State Grid, the Chinese grid operator brought in to manage the new Pakistani power lines, and the Pakistani regulator (Kiani, 2016b; Rafiq, 2017, p. 20). Unlike

the case of the Salt Range project, the Chinese state-connected financial sector was there to ensure that project moved forward. Even before the dispute, the China Development Bank committed \$3.55 billion to the power lines (Dreher, Fuchs, Parks, et al., 2018). Of this, \$1.76 billion has already been budgeted to State Grid to build and operate the Lahore lines, with the remainder presumably to go to the Faisalabad lines, which are being built later (American Enterprise Institute, 2019; Kiani, 2016b). This is the only such major use of debt to ensure a Pakistani power project happens. This author does not claim any knowledge of what was said behind closed doors, but the circumstantial evidence does show that Chinese banks did not massively intervene for individual, dispensable power plants but did so for transmission projects central to the Pakistani government's entire energy plan (and China's participation therein). This is consistent with the idea that the political costs of debt are usually only incurred where necessary: for risky highway projects important to Chinese strategic interests or to safeguard a much larger program of electricity-based outreach to the Pakistani government.

In summary, China's financing to the fossil fuel power sector varied based on risk level and importance to overall bilateral relations. The first plant built came before CPEC and the centrality of the power sector to Sino-Pakistani diplomacy, and so China used tough loan terms without as much concern for political considerations. The relative lack of political considerations also meant a much lower overall volume of finance. As electricity grew as a Pakistani political issue and CPEC hit its stride, though, this changed. The volume of Chinese financing kept up with Pakistani demand, and increasingly along favorable, equity-heavy terms. There was some variation as well between equity investments plants using imported coal, which is commercially more viable but politically less useful, and more hybridized debt-equity models for higher-risk but politically useful plants burning coal

from Pakistani mines. These power stations are highly important to Sino-Pakistani relations in the aggregate, but each individual one might reasonably be considered expendable. Not so for a network of transmission lines connecting the two primary clusters of generation activity at Karachi and the Thar Desert to consumers in the cities of Punjab. When the transmission project ran into trouble due to a pricing dispute with the Pakistani regulator, funds from the China Development Bank ensured that it kept going regardless.

Renewable The early wave of CPEC has focused on coal plants partially due to Pakistan's desire to quickly bring online large amounts of new generation capacity. Coal can do this, but hydropower projects tend to take more time, and wind and solar projects tend to be smaller. This section will discuss the less politically useful renewable sectors. It begins with hydro, for which a historical Chinese focus on freelance contracting and occasional loans has shifted toward equity in the CPEC era. I then look at wind and solar, for which very few tied loans have been used, and equity is more common.

Table 7.2 on the following page lists known Chinese-built hydropower plants from 1997 to May 2020.

Table 7.2: Chinese-Involvement Hydropower Projects in Pakistan, 1997-Present

Name	Year	CPEC?	Contract Value (mil. USD)	Contractor	Funding?	Equity?	Notes
Ghazi-Borotha	1997		2,300	Sinohydro	WB, ADB, JBIC, KfW, EIB & IsDB		
Gomal Zam	2001		190	Sinohydro	USAID		
Allai Khwar	2003		137	Dongfang Electric, Sinohydro, Guangxi Water & Electric, Siemens	Exim and IsDB		
Duber Khwar	2003		190	Sinohydro	IsDB		
Khan Khwar	2003		97	Dongfang Electric and Sinohydro	Arab Abu Dhabi Foundation		
Malakand III	2006		37	CWE and Sinohydro	Pakistan		
Jinnah	2006		128	CEEC and Dongfang Electric	Pakistan		
Neelum-Jhelum	2008		5,860	CWE, Gezhouba, CMC	Exim, Saudi Arabia, Kuwait, OPEC		
Bunji	2009		6,868	CWE		CWE	Stalled.
Mangla Dam Raising	2009		240	CWE and Sinohydro	Unknown Chinese bank		

Continued on next page

Table 7.2: Chinese-Involvement Hydropower Projects in Pakistan, 1997-Present

Name	Year	CPEC?	Contract Value (mil. USD)	Contractor	Funding?	Equity?	Notes
Satpara	2009		52	China Machine Building, Central China Power, Descon, and Andritz	USAID		
Darawat	2010		139	Sinohydro	Exim		AIIB joined later as WB adding new funds.
Tarbela IV	2012		1,738	Sinohydro, Voith Hydro Shanghai	World Bank, AIIB		China left and later returned. Inclusion in CPEC TBD.
Diamer-Bhasha	2012	TBD	14,000				
Karot	2013	Y	1,698	Three Gorges	CDB, China Eximbank, SRF, IFC (80%)	Three Gorges (70%), Silk Road Fund (15%), IFC (15%)	30-year build-own-operate-transfer (BOOT).
Keyal Khwar	2013		254	Sinohydro and Haijinyang Group	KfW, EIB		Canceled in 2017.
Kohala	2016	Y	2,400	Three Gorges			Stalled.
Dasu	2017		4,300	Gezhouba, CCECC	World Bank, Credit Suisse, Aga Khan		

Continued on next page

Table 7.2: Chinese-Involved Hydropower Projects in Pakistan, 1997-Present

Name	Year	CPEC?	Contract Value (mil. USD)	Contractor	Funding?	Equity?	Notes
Suki Kinari	2017	Y	1,888	Gezhouba and Haseed Khan	Exim and ICBC (75%)	Gezhouba (98%), Haseed Khan (2%)	

Sources: American Enterprise Institute (2019), Bhutta (2019), China Three Gorges South Asia Investment Ltd (2020), CPEC Authority (2020), Dawn (2007), E. Downs (2019), Dreher, Fuchs, Parks, et al. (2018), Embassy of the People's Republic of China in Pakistan (2018b), Gezhouba [葛洲坝] (2016), Harris (2014b, 2015), Hydro Review (2013a,b), International Rivers (2014), Jorgic (2017), Ministry of Commerce of the People's Republic of China [中华人民共和国商务部] (2010), Pakistan Water & Power Development Authority (2020a,b,c), Power Engineering (2003), Power Technology (2020b), Press Trust of India (2018b), Shakir (2010), Small (2015), The Express Tribune (2013), The Nation (2017), The News International (2020), United States Agency for International Development (2013b, 2016), and World Bank (2004, 2014, 2018b, 2019b)

The sheer number of hydro plants greatly exceeds the number of coal plants, largely because China was heavily involved in hydropower from a much earlier date. Much of China's involvement came via third-party financing: of the thirteen projects before 2012, when the first CPEC-designated³⁵ dam was agreed to, only four³⁶ received financing from China, and two of these were in conjunction from loans from the Islamic Development Bank (the Allai Khwar project) or Persian Gulf governments and OPEC (Neelum-Jhelum). Otherwise, multilateral development banks like the World Bank and bilateral agencies like Germany's KfW tend to feature more heavily. There was space for Chinese firms to make money building dams in Pakistan, but typically using funding arrangements from elsewhere. There was less incentive for China to put money behind them before Pakistan played quite as large a role in China's geostrategic planning.

This changed, of course, with CPEC, but even as the quantity of Chinese financing increased, the terms did not entail any more debt on Pakistani balance sheets. Chinese interests have taken large majority stakes in two of the three projects currently designated as part of CPEC.³⁷ In a gesture that had to be noticed in Islamabad, the Karot dam was the first investment made by the Silk Road Fund, a Chinese government fund aimed at fostering equity investment along the Belt and Road (Silk Road Fund, 2015). The Silk Road Fund's 15 percent stake, though, was far exceeded by builder Three Gorges' 70 percent and was matched by 15 percent from the International Finance Corporation (IFC), the World Bank Group's designated equity investor (Embassy of the People's Republic of China in Pakistan, 2018b). Talking about third-party participation in Chinese-funded power plants,

³⁵The Diamer-Bhasha dam was already being planned when CPEC was announced and was retroactively added to the list of projects. It was taken off the list for several years while the project was stalled but may be added back to the list after China recommitted to the dam in May 2020. This episode will be discussed in greater detail later in this section.

³⁶This is not counting the Bunji project, which stalled before financing details appeared to be fully settled.

³⁷The official list of CPEC projects can be found at CPEC Authority (2020).

E. Downs (2019) writes that:

It is probably safe to say that these companies would not purposely invest in unsustainable power plants. This is especially true for the IFC, a global development institution with a mission to help the private sector end extreme poverty and boost prosperity. The IFC is supporting the Karot Hydropower Project to end Pakistan's power shortage and improve the sustainability of Pakistan's power sector. (40)

In other words, the equity partners and IFC in particular do not see this as makework for Chinese excess capacity. The partners have also assumed the risk of 80 percent debt financing from CDB, Exim, the Silk Road Fund, and IFC (E. Downs, 2019, p. 36; World Bank, 2019b). The Three Gorges-led consortium is to own and operate the finished product for thirty years while paying interest rates averaging 3.8 percent above LIBOR, which at the time came out to 5.1 percent total (Embassy of the People's Republic of China in Pakistan, 2018b). This interest rate is not necessarily high, but it is high enough that the operating consortium does bear appreciable downside risk. Gezhouba has gone even further at Suki Kinari, owning 98 percent of the 75 percent debt-backed project.³⁸

Lower risk at Karot and Suki Kinari allowed Chinese firms to serve Pakistani interests with minimal pressure on the Pakistani budget. Political risks due to terrorism and rivalry with India, though, have stood in the way of other projects. First, Chinese firms started work on the Gomal Zam dam in August 2001, only a month before attacks in the United States fundamentally changed the political calculus surrounding a dam located in South Waziristan, not far from the Afghan border. In 2004, two Chinese engineers were kidnapped and killed, leading to the consortium's withdrawal. The Pakistani military and (temporarily) a Turkish firm took custody of the site for three years before Sinohydro finally agreed to enter, now

³⁸The third CPEC-designated dam at Kohala is currently stalled without a definitive source of financing. This will be discussed later in this section.

with backing from USAID (Dawn, 2005; Shakir, 2010; Small, 2015, pp. 109–11). Unexpected political risk blocked a contracting arrangement for years before it could be revived by funding from a government with a pronounced interest in Afghan-Pakistani stability; in this case, that meant American funding.

Risk from Afghanistan, though, has factored into fewer dam projects than risk from India. The Neelum-Jhelum, Bunji, Diamer-Bhasha, and Kohala dams are all in Pakistani-controlled but Indian-claimed territory to the north. An Indian dam upriver has presented problems for some by restricting the flow of water. It would not be accurate to say that the India factor is the only reason some of these dams have stalled: cost has also been a factor for the multi-billion dollar installations. However, Indian opposition does appear to have been a factor for Kohala. Kohala was originally to be built by the same Three Gorges-IFC consortium involved in other hydro projects in Pakistan, and a World Bank organization was loath to involve itself in India-Pakistan politics (Bhutta, 2019). At Diamer-Bhasha as well, the World Bank had intended to fund the project but withdrew after failing to gain India's assent (The Nation, 2012). The United States and Asian Development Bank opted out partially for similar reasons (S. Shah, 2011).³⁹ In 2017, Pakistan withdrew from a deal that would have seen China take ownership of the dam and collateralize it against the revenues from another dam (Rana, 2017). China recognized the risk involved and, in the absence of the same direct political stake as in nearby highway projects, was acting accordingly. As of May 2020, China is returning in the form of a joint venture between Sinohydro (70 percent) and the Pakistani military's Frontier Works Organization (30 percent) (Hariharan, 2020). This does not undo China's majority ownership of the project, which may have been aimed at ensuring it was completed and maintained, but it does do away with

³⁹In the American case, the Abbottabad raid also played a role.

the much thornier collateralization of unrelated revenues, which as for collateralization oil in Ecuador was generally unpopular. Funding is reportedly coming from China as well, although as of this writing the details are still unclear (Chaudhury, 2020; Hariharan, 2020). Diamer-Bhasha may be going forward at relatively favorable terms despite high political risk but has traversed a rocky road on the way.

While there have been a few dams for which Pakistan owes debt, there have been none for wind or solar power. Table 7.3 lists the relevant projects.

Table 7.3: Chinese-Involved Solar and Wind Power Projects in Pakistan, 1997-Present

Name	Type	Year	CPEC?	Contract Value (mil. USD)	Contractor	Funding?	Equity?	Notes
Three Gorges First Wind Farm	Wind	2014		130	Three Gorges		Three Gorges (70%), Silk Road Fund (15%), IFC (15%)	30-year build-own-operate-transfer (BOOT).
Three Gorges Second and Third Wind Farm	Wind	2016	Y	228	Three Gorges	CDB (70%)	Three Gorges (70%), Silk Road Fund (15%), IFC (15%)	20-year BOOT.
Quaid-e-Azam Phase I	Solar	2014		190	Tebian Electrical Apparatus	Bank of Punjab		
Quaid-e-Azam Phase II	Solar	2015	Y	1,500	Zonergy (ZTE)	CDB, Exim (80%)	Zonergy	
Tenaga	Wind	2014		95	CMEC		Tenaga Generasi (Malaysia)	
Dawood Wind	Wind	2015	Y	113	Sinohydro	ICBC (70%)	Sinohydro (100%)	
UEP Wind	Wind	2015	Y	336	Gezhouba	CDB (75%)	UEP (100%)	
Sachal	Wind	2015	Y	110	Gezhouba	ICBC (85%)	Arif Habib (100%)	
Hawa	Wind	2017		130	Sinohydro, GE		Hawa Energy (Pakistan)	

Sources: Agence France-Presse (2014), American Enterprise Institute (2019), CPEC Authority (2020), E. Downs (2019), Dreher, Fuchs, Parks, et al. (2018), Embassy of the People's Republic of China in Pakistan (2018a,c,e,f,g), Hawa Energy (2018), Hielscher (2018), Hong (2020), Mancheva (2014, 2016), E. Ng (2012), Shumkov (2018), United Energy Group (2015), and Zehra (2015).

In no case did a wind or solar project entail the Pakistani government going into debt to China. Where Chinese banks made loans, they were always payable by Chinese, Pakistani, or third-country firms. In several cases, Chinese firms were brought on as contractors to build projects owned by groups like Pakistan's Habib and Malaysia's Tenaga. It is not always clear where funding for these projects came from, but Chinese commercial banks did in at least one case (Sachal) lend to a Pakistani firm, albeit in order to then pay a Chinese contractor for work done. In other cases, Chinese firms were actively involved in managing and owning the end products. Three Gorges again partnered with the IFC for three related wind farms. The IFC's strict profitability requirements and system of risk assessments would indicate that these are lower-risk projects in which Three Gorges could reasonably expect to earn a return on investment. Similarly, the provincially managed first (\$190 million) phase of Quaid-e-Azam solar project was built by China with funding from a provincially-owned bank, but Chinese investors took a more direct stake in the second phase. Zonergy, an energy-focused subsidiary of tech giant ZTE, invested \$1.5 billion in what was then the world's largest solar plant (Ebrahim, 2015). This exposed them to substantial political risk. Within a year of signing the contract, they were involved in a lawsuit against the local regulator over tariffs, which had been slashed by 36 percent from the contractual amount reportedly over the falling cost of solar equipment (Saeed, 2016). Fortunately for Zonergy, their investment was 80 percent backed by CDB and Exim, and they were able to push through the dispute and complete the project. Xi Jinping attended the opening ceremony (Embassy of the People's Republic of China in Pakistan, 2018g). Zonergy—and, more to the point, its financial backers—were exposing themselves to considerable risk for Pakistan's sake, with clearly demonstrated positives for bilateral relations. UEP made a similar point about its own leveraged equity investment in wind power: a company release states that “through its efforts and diligence in Pakistan, United Energy has

made and is continuing to make contributions to the energy development of Pakistan, and is doing its part in support of China's Belt and Road Initiative and China-Pakistan Economic Corridor strategy" (United Energy Group, 2015).

Of all of these projects, the Zonergy solar installation is far and away the largest and most able to contribute to Pakistani energy security. It parallels the Thar Desert coal plants in that Chinese firms are assuming risk in the name of a Pakistani domestic priority. Many smaller projects were more able to find local funding, meaning less Chinese state involvement was necessary.

Nuclear Nuclear power is inherently more sensitive than other types of power generation. It is even more so in the context of Indo-Pakistani nuclear rivalry. Most countries' aversion to working with the Pakistani nuclear sector has left a vacuum for China to fill, with attendant baggage both political and commercial. As Small (2015) puts it,

China's investments in Pakistan's civil nuclear power sector [...] do have commercial utility—they give China's nuclear industry the opportunity to showcase power plants outside its home market. But they have also been inextricably bound up with the longstanding programme of Sino-Pakistani nuclear weapons cooperation and, in more recent years, the response by Islamabad and Beijing to the US-India nuclear deal. (108)

China has backed all but one of Pakistan's nuclear plants; the exception was a Cold War-era reactor built with Canadian assistance. While these are large and hypothetically lucrative contracts, what financing information is available for them tends to skew toward Pakistani interests, and Chinese firms appear to be making money at lenders' expense. As Small points out, there is some benefit to creating a "loss leader," or a series of investments meant to lose money but act as advertising for future customers. The real benefit to China, though, is in strengthening political relations. Nuclear tests in the 1990s, the A. Q. Khan prolifera-

tion scandal of the 2000s, and lasting concerns over extremism or conflict with India have all cast the Pakistani nuclear program in a negative light. China's continuing support for it—on favorable terms, none the less—underscores the “all-weather friendship” between China and Pakistan.

This section sequentially juxtaposes these historical events with the development of the Chinese-assisted “Chashma” series of five nuclear plants in Punjab as well as the “KANUPP II” plant in Karachi. While the exact situation surrounding Pakistan's nuclear program has varied over time, it has never gained broad international acceptance, and China has consistently stayed with it regardless.

Perhaps because of the strategic nature of the work in question, Sino-Pakistani nuclear cooperation goes back further in history than in other power sectors. Pakistan's “Chashma I” power plant had its roots in French cooperation in the 1970s, but France backed out, leaving an unfilled void until the China National Nuclear Corporation entered in 1991. The IAEA approved the work, which began in 1993. Work was still underway in May 1998, when Pakistan tested several nuclear weapons. The tests were in response to Indian explosions weeks prior, leading to international fears of nuclear rivalry (Federation of American Scientists, 2000; Nuclear Threat Initiative, 2011). Work continued on the plant regardless. It was completed in 2000, after which China supplied the new reactor with fuel (National Electric Power Regulatory Authority, Pakistan, 2003, pp. I–1).

Financing information for Chashma I is not available, but is at least partially so for subsequent construction. This merits a cautionary word about the unique nature of nuclear investments. Because of the sensitivity of nuclear power, foreign ownership is simply not on the table. All plants are owned and operated by the Pakistani authorities. For different reasons, it would also be difficult to fund projects in the hundreds of millions to billions

of dollars using grants. So, the default has been a mix of loans from China and Pakistani domestic funding. Where Chinese money is concerned, the question then becomes loan terms. These are not available for Chashma II but are known for more recent plants; these are discussed in chronological order.

Chashma II's \$490 million budget was partially funded by \$350 million in Chinese loans (American Enterprise Institute, 2019; Dreher, Fuchs, Parks, et al., 2018; World Nuclear Association, 2020a). The loans were committed in 2003; the following year, it came to light that Pakistani nuclear scientist A. Q. Khan had been selling nuclear technology to countries including Libya and North Korea. The International Atomic Energy Agency (IAEA) did not revoke its blessing, though, and despite international concerns, China stayed with the project (Agence France-Presse, 2006). The "all-weather friendship," to use a state propaganda term, was indeed weathering a rainstorm.

More is known about Chashma III and IV, for which China National Nuclear Corporation (CNNC) continued its involvement from the previous two plants. These were jointly covered by \$1.912 billion in credit from China meant to cover 82 percent of the \$2.37 billion budget. One source lists these as "low-interest loans" payable over a generous twenty-year timeframe, although the exact interest rate is unclear. (World Nuclear Association, 2020a). China also again agreed to provide fuel (National Electric Power Regulatory Authority, Pakistan, 2016; World Nuclear Association, 2020a). By the time this new deal was announced in 2010, the A. Q. Khan scandal did not cast quite so long a shadow, but the plants remained controversial. Despite the IAEA's approval, the deal had yet to win the assent of the Nuclear Suppliers Group (NSG), a multilateral grouping focused on nonproliferation. Small (2015) writes that:

In 2010, observers were surprised to discover that China National Nuclear Corporation had signed agreements to provide two new 300-MW reactors at Chashma, with Shanghai Nuclear Engineering Research and Design Institute providing the reactor design. Initially there was scepticism among foreign officials and informed observers—Pakistan appeared to have been over-selling the prospects of a Chashma deal, and this may well have been more of the same. But the agreements were real. Attention quickly moved to the NSG and how China would approach the process of securing international consent. Its approach was simply to brazen it out. When China was asked for clarification at the NSG plenary in Christchurch, New Zealand, in June 2010 it responded a few months later with the position it has maintained ever since: that these reactors had been grandfathered in China’s original 2004 agreement. None of the other NSG members accepted this position. But there was little consensus about how to respond. While the violation was blatant, there was no real appetite for a serious fight with China over a couple of power plants under IAEA safeguards, and for many of those who had opposed the US-India deal in the first place there was a dose of “We told you so”. (Chapter 3)

The last sentence’s reference to the US-India deal is central. In 2006, India and the United States had worked out a deal to cooperate on civil nuclear technology despite the contentious politics of Indo-Pakistani nuclear competition and the dueling tests of the 1990s. China’s decision to continue with assistance to Pakistan despite international opposition was in this sense geopolitical, signaling continued commitment to a partner which might otherwise fall behind its principal rival in a strategic technological area.

After Chashma IV, China and Pakistan branched out from the Chashma location and pivoted toward the Karachi Nuclear Power Complex (KANUPP), where Canada had already helped build a reactor during the Cold War. Again based on Chinese blueprints, the KANUPP II plant was much larger, requiring 6.5 billion in loans from Exim against an estimated \$10 billion budget. This time, more details are available on loan terms: 2.647 billion RMB at one percent interest; US \$4.001 billion at two percent interest; and \$2.250 billion at six percent interest (Dreher, Fuchs, Parks, et al., [2018](#)). The last installment is

at more market-like rates but constitutes less than half of China's total lending. Billions in loans at interest below the rate of inflation are not quite a grant, but they are not very demanding of the recipient, either. Motivated by some mix of geopolitics and a desire to advertise its nuclear sector, China wanted to make sure that Pakistan could build the new plant despite its limited budget.

As of this writing, Chashma V is in the planning stages. No details are yet available, but Sino-Pakistani nuclear cooperation continues, and the historical track record would indicate that Pakistani interests will be accommodated.

7.2.1.7 Mining and Oil

Many of the power plants discussed had domestic political ramifications for Pakistan and demonstrated Chinese commitment to Pakistani priorities. I now pivot to the extractive sector, which is less politicized and has been treated more at arms' length. Pakistan is not a major producer of most minerals. China has made some modest contributions to Pakistan's mineral sector but usually without putting many demands on the Pakistani government in terms of debt obligations. Pakistan's potential contribution to Chinese resource security is simply not enough to justify the type of tactics seen in countries like Ecuador with more minerals to offer.

An early example of Chinese engagement in Pakistani commodities came in 2001 with an oil pipeline connecting an inland refinery in Punjab to the coast at Port Qasim. The pipeline did not approach the Chinese border and is of limited strategic use to China. Chinese commercial interests were involved only in a limited capacity. Of the \$480 million budget, \$102 million was funded by Exim; this was reportedly only the part of the budget for which foreign exchange was necessary. The rest of the \$360 million in debt funding came from

Pakistani banks. The remaining \$120 million in equity financing came 51 percent from a joint venture of the Pakistani (60 percent) and Abu Dhabi (40 percent) governments, with the rest belonging to Pakistani State Oil and Western-based multinationals (Dawn, 2002; Dreher, Fuchs, Parks, et al., 2018; PetroEnergy Information Network, 2004). A CNPC subsidiary shared contracting duties with Pakistan's Techno Engineering, again indicating that this was not a China-specific project (Business Wire, 2005). CNPC may have seen a business opportunity and gotten help from Exim, but this was not the type of tied loan contract which has been known to cause controversy.

Also in 2001, the Metallurgical Corporation of China (MCC) invested in the Saindak copper and gold mine, near Pakistan's triangular border with Afghanistan and Iran. MCC agreed to invest \$350 million in exchange for a leasehold through 2017. As part of the leasehold, MCC could keep 50 percent of the profits, leaving 48 percent to the national government and 2 percent to the provincial government of Balochistan (Muhammad, 2013; Rafiq, 2017, p. 39). These terms have found few critics in the central government but many in Balochistan, where regional identity runs deep. The five-year extension of the deal past the original 2017 deadline for handover to Balochistan province has added fuel to the flames, with many Balochis worried the copper and gold might be mostly exhausted by then (Dispatch News Desk, 2017; Notezai, 2018; S. A. Shah, 2018). It is not clear whether MCC had any say in the 48-2 split between the central and provincial government, and it is even less clear that the Chinese government had any say in it. Still, what happened in effect was that MCC signed onto a deal which clearly granted better terms to Islamabad than to Balochistan. The theory predicted tougher terms to lock down natural resources but did not take into account that there could be more than one recipient. The center-local divide usually does not factor prominently in Chinese finance to developing countries, but

in this exceptional case, a Chinese firm managed to cut a favorable deal for itself *and* the partner national government at the locals' expense. From the firm's perspective, the national government has more power over mineral licensing and controls the military, which is used to protect mining investments in a volatile area. From the Chinese government's perspective, the leadership in Islamabad is by all estimates more consequential than any individual province. From both perspectives, it made sense to accede to a deal favoring the central government.

The following decade was much slower. MCC in 2005 entered into a second deal, a joint venture with two Hunan provincial firms to mine zinc and lead in Pakistan. The small (\$72.6 million) deal was 80% supported by CDB (China Metallurgical Group, 2007; Dreher, Fuchs, Parks, et al., 2018). Another major Chinese mineral investment did not come until significantly later, in 2010, when an exogenous shock on the opposite side of the world created an opening for new entrants to Pakistan's oil industry. Specifically, financial pressures due to lawsuits following Deepwater Horizon oil spill prompted British Petroleum (BP) to sell off many overseas assets, including its holdings in Pakistan (E. Ng, 2012). Hong Kong-based United Energy purchased BP's Pakistani upstream operations for \$775 million (British Petroleum, 2010; United Energy Group, 2011). By 2012 United Energy was already planning another \$200 million in investments to expand capacity in cooperation with Pakistani state oil companies (Green Car Congress, 2012). The *South China Morning Post* noted that under a prominent mainland-born boss, United Energy enjoyed a \$5 billion line of credit with CDB (E. Ng, 2012). In 2018, United expanded further by buying the Pakistani assets of Austria's OMV for \$192 million (Baloch, 2018). Access to policy bank credit allowed United to expand on the opportunity created by the faraway Gulf of Mexico oil spill, sometimes including Pakistani state oil firms in the process. Oil is

not central to the Sino-Pakistani relationship, but United's investments could not have hurt, either.

7.2.1.8 Other Infrastructure

Chinese firms were involved in several projects related to infrastructure not covered by the previous categories, but these never received overt Chinese funding. Examples include a plant to turn city waste into fertilizer or methane fuel (\$100 million); World Bank-funded irrigation in Sindh and Punjab (\$72 million and \$130 million, respectively); and airport construction in Islamabad and Lahore (\$230 million and \$380 million) (American Enterprise Institute, 2019; World Bank, 2018b). Of these, information on the source of financing is only available for the World Bank irrigation projects, but they generally reflect Pakistani (or World Bank) desire to raise living standards and productivity—or attract tourism—the airports, whose location by major cities makes them much more useful for commercial aviation than the more remote, potentially military-friendly airport at Gwadar. In the absence of major foreign policy or geostrategic concerns, Chinese firms will sometimes engage in projects just to earn money, but home government support will be less forthcoming, even if participation in the projects could contribute to a positive image of China.

One major project outside the sectors previously discussed has actually received major credit from China. The new, \$1.63 billion Orange Line of the Lahore Metro is supported by Exim. At 6 percent interest over 15 years and only 2 years' grace, this loan is quite a bit tougher than most of those used in more strategically important areas (CPEC Authority, 2020; Dreher, Fuchs, Parks, et al., 2018). The Lahore Metro is an oddity in Pakistan: a project mostly being done for Pakistani consumption and Chinese commercial gain, without any other factors obviously at play. Provincial politics have presented difficulties that

could have made Chinese firms more reticent about the commuter system. The Nawaz Sharif administration was often seen as partial to its home territory of Punjab, where Lahore is located. Rafiq (2017, p. 15) writes that “because of the controversy stemming from the perception that the ruling party was favoring Punjab, commuter rail projects in other provinces have been added [...]” The Asian Development Bank is funding an approximately \$1 billion bus system in Peshawar, most of which has not yet been allocated but small amounts of which have already gone to Jinlong, whose buses are ubiquitous in many Chinese cities (Asian Development Bank, 2020b). Plans for Karachi and Quetta may follow (Rafiq, 2017, p. 15). Coal plants represented a Chinese carrot to Pakistan’s electorate, and nuclear plants were especially appreciated by the security establishment. The Metro’s appeal was much more limited, which perhaps is why China saw it as a less useful public relations tool and treated it as a more commercial transaction.

7.2.1.9 Conclusion: Pakistan

Pakistan’s geostrategic importance competes with and sometimes interacts with factors including political risk and commercial interests to shape Chinese development finance deals in complex but theoretically predictable ways. H3A predicted that geostrategic factors at their most basic lead to laxer terms. This was on full display in aid to Afghan refugees and in a more limited capacity for loans to build surveillance systems and a satellite, which were too expensive to be done via grants but were instead funded by particularly favorable loans. Indeed, not all projects are cheap enough to be done by grants: apart from the exceptional, centrally important case of the complex at Gwadar, grants and zero-interest loans were scarcely used for infrastructure. Where a project’s price tag implies greater commercial interests, a more typical choice would be between freelance contracting, equity, and debt. Freelance contracting was less observed in Pakistan, probably because of chronic

shortages of capital, but did sometimes exist in areas of local or Bretton Woods priority like clean energy or the social sector. In practice, China was pushing capital into Pakistan via either equity or debt, with the former being more preferable from the perspective of a Pakistani government with chronic structural debt issues.

This choice had to also factor in risk. Equity investors are more exposed to risk than firms which receive loans from China but bear no long-term responsibility for the project they are building. Chinese equity investors enthusiastically embraced, for example, coal plants using imported coal, thereby fulfilling a Pakistani government priority. At the same time, Chinese firms used a somewhat more lackluster mix of debt and equity in plants using lower-quality domestic coal. These deals were essentially driven by Pakistani politics and viewed less favorably by the business community. China employed enough debt to convince firms to take on the jobs, but not so much that Pakistan resented the arrangements.

In areas of high risk and high geostrategic importance, H3B would predict tougher terms. In Pakistan, China did indeed sometimes had to use the risk-management value of tied debt to push firms to do its bidding. Within the highway sector, then, debt was used to repair the Karakoram Highway linking Pakistan with western China and to build a transnational fiber optic cable serving as its digital equivalent. Telecoms and road projects in less sensitive areas, though, were more likely handled with third-party or domestic funding and did not always involve Chinese firms. The terms of loans to geostrategic projects were frequently highly concessional as well; lower-interest tied loans still lower risk to Chinese firms but place less burden on the recipient, so long as the Chinese bank (and its state owners) see it fit to sacrifice some wealth. Pakistan's significance is such that higher-interest loans were little used with an exception for the Lahore Metro, which was domestically controversial

and of limited political use to offset its utility to Chinese companies.

Apart from a smattering of mining and oil investments, Pakistan has relatively limited significance to Chinese (or global) resource security. This dissertation's last full case study looks at what happens when the patterns of political risk and natural resource production observed in Ecuador meet a degree of geostrategic significance paralleling that of Pakistan. As we shall see, these competing interests lead to an intermediate strategy between the extremes seen in resource-poor Pakistan and (from China's perspective) geostrategically distant Ecuador.

7.2.2 Kazakhstan

Chapter 3 conceptualized the secure transportation of goods to and from China as a geostrategic interest; this notably includes oil and gas imports. Oil and gas *production*, however, was conceptualized as a "resource security" interest. Pakistan is home only to the former, at least in any significant volume, but Kazakhstan is home to both. To begin with, there is some tension when China uses debt and other risk management tools to push firms toward geostrategic projects, in the knowledge that this may undercut relations with host countries on whom China will rely to maintain access to the completed infrastructure. This is even more complicated in a case like Kazakhstan in which China also faces incentives to push capital toward oil and gas production, which in a relatively high-risk country might in some cases mean heavy debt or even resource-backed debt.

This has not happened in Kazakhstan, which because of these competing priorities emerges as an intermediate case between the tougher stance seen in Ecuador, where geostrategic access is not a major issue, and the laxer terms used in Pakistan, where commodity production is minimal. Following 1) a brief introduction to relevant background of the Kaza-

khstani case, I outline Chinese development finance in Kazakhstan by sector. 2) Overland transportation projects exhibit intra-sector variation as China leaves more market-oriented highway projects to international organizations like the World Bank and allocates its own capital to more ambitious but riskier railways and eastbound pipelines of more interest to itself than to most other financiers with westward centers of gravity. Despite a history of Kazakhstani government encroachment, 3) upstream production of oil and gas is done on relatively favorable terms to the government, partially because the risk is not quite as high as in Correa-era Ecuador but also because China needs to maintain healthy relations with Kazakhstan for its own reasons. China also skews toward minority joint ventures, indicating that Kazakhstan's institutions may to some degree deter equity investment, albeit in relative but not absolute terms. The same is true in some instances for 4) other minerals. Kazakhstan's uranium sector is fairly established and internationalized and is home to many joint ventures similar to those used for oil, but the metals sector is prone to graft and has been more of a target for debt. Similar intra-sector variation in risk and development finance outcomes can be seen in 5) the productive sectors of agriculture, industry, and finance. Finally, 6) aid to border security and law enforcement shows similar concerns to those on display in Pakistan, but not to nearly the same extent.

7.2.2.1 Background: Kazakhstan

Kazakhstan's post-Cold War history has followed a trajectory which has affected its relationship with China in several ways. First, it is historically characterized by high levels of political risk and corruption, but risk has tended to fall over time. Second, while governance risk has abated over time, border security and terrorism have increased in importance, as has China's ability to build trans-Eurasian connectivity projects. Third, Russia's influence is always palpable but has receded since the collapse of the Soviet Union, especially

following the financial crisis and the invasion of Crimea. Fourth, Kazakhstan's domestic leadership in the 2010s began to turn toward foreign-financed infrastructure as a growth strategy, creating a natural coincidence of interests with China.

The legacy of Russian imperial and Soviet rule has left with Kazakhstan with high levels of entrenched corruption. The Central Asia scholar Alexander Cooley (2012) writes of Central Asian states that:

All of the Central Asian regimes have been aptly described as “patrimonial.” In such polities, rulers maintain their positions of authority in return for distributing resources to a network of supportive political clients. Political competition takes place informally and at the elite level, rather than through elections or the aggregation of interests via political parties. (16)

This pattern, he continues, is the result of a Russian imperial and later Soviet system in which the government in Moscow delegated significant influence to local elites who were relied upon to distribute resources across their territories. These local elites were in a position to profit from their offices and continued to do so as leaders of independent nations, with the caveat that Russia was now a foreign country and money from Western multinationals entered the picture (Cooley, 2012, pp. 16–25). Like the other former parts of the Soviet Union, Kazakhstan went through a chaotic period in the 1990s as elites used privatization as an opportunity to take control of lucrative assets. Over time, though, power was consolidated under Nursultan Nazarbayev. This was not exactly rule of law, but it was a form of stability, anyway. This presents a different kind of political risk than existed in Pakistan. Pakistan's challenges to investors had to do with state weakness: inability to collect taxes or balance its budget, lack of control over its own territory, and perennial challenges from neighboring India. Kazakhstan's leadership did not face serious domes-

tic challenges⁴⁰ but was also known to demand percentages of major contracts for itself, potentially in excess of those originally agreed upon. This type of political risk is more similar to that faced in Ecuador than in Pakistan, but nevertheless generates similar results for Chinese development finance.

The type of risk from extremist groups best exemplified in Pakistan does exist in Kazakhstan, though, and has come into greater focus over time. As for Pakistan, the September 11 attacks made China increasingly cognizant of these dangers in Central Asia. The Shanghai Cooperation Organization including China, Russia, and the Central Asian states has emerged over time as a leading counterterror forum in the region. Kazakhstan's long border with Xinjiang and a small ethnic Kazakh population on the Chinese side of the border make it especially pertinent (Cooley, 2012, Chapter 1; T. Miller, 2017, Chapter 2). While terrorism is less of a concern in Kazakhstan than in Pakistan, China still faces incentives to maintain economic stability there in order to safeguard Xinjiang.

China's outreach to Kazakhstan has been constrained by the continuing influence of Russia, albeit less over time. Most Kazakhstanis are bilingual in Kazakh and Russian, and the influence of their large neighbor to the north is unlikely to ever totally disappear. Still, the economic balance of capabilities has clearly shifted with China's high-speed growth. The section on oil and gas will demonstrate that Russian (and Western) firms were more able to lock down the Kazakhstani market through the mid-2000s but began to recede thereafter, especially following the 2008-2009 financial crisis. Russia's influence took a further hit with the 2014 invasion of Crimea and ensuing Western sanctions (T. Miller, 2017, Chapter 2). Russia's shrinking economic power has not been immediately matched by a comparable decline in military power, though, as Russia continues to maintain military access rights as

⁴⁰This could change following Nazarbayev's 2019 retirement but was true during the period being studied.

a legacy of post-Soviet agreements. The Central Asian adage “Russia is a rifle and China is a purse” speaks to this awkward state of affairs (Markey, 2020, p. 107). Whether this is financially sustainable from a Russian perspective is an open question, but for the time being it means that Kazakhstan and other Central Asian states are in a position to play Russian and Chinese interests against one another to extract a better deal (Gabuev, 2016; Markey, 2020, p. 95). This competitive effect on financial bargaining is similar to that created by the draw of countries with stronger governance environments but in this case comes about for exogenous historical reasons.

Most recently, Kazakhstan has begun to focus on physical infrastructure and industrial upgrading as part of its Nurly Zhol economic development program. Nurly Zhol, which began in 2014, dovetails nicely with the Belt and Road, which was launched by Xi Jinping during a visit to Kazakhstan the following year. Nurly Zhol and the Belt and Road have been formally linked by a bilateral agreement. Implementation of related projects has been slow, and it is too soon to fully evaluate how much will come of this partnership, but the latent potential still exists (Kassenova, 2018).

I begin the analysis of specific projects with overland connectivity, a core concern for China in Kazakhstan.

7.2.2.2 Overland Transportation

Kazakhstan’s central place in Eurasian geography earns it a central place in the Belt and Road. Overland routes to Europe simply do not work as well without it. As mentioned previously, the BRI itself was launched there. China is pursuing Malacca-free routes to Europe of several varieties. First are highways. China’s participation in the Kazakhstani road sector is actually fairly small relative to major multilaterals like the World Bank and

the Japanese-led Asian Development Bank. China is more involved in a second type of connectivity: railways. Economists at the multilaterals tend to see highways as more appropriately scaled for an area of low population density and limited traffic, but China's ability to bet big using government support here manifests itself via subsidized rail traffic. Third, oil and gas pipelines shed some light on the competitive dynamic with Russia, which before China's economic emergence had had a functional monopoly on Kazakhstani hydrocarbon exports.

Road China's involvement in Kazakhstani road-building is not all that well-correlated with individual roads' importance to China. Instead, China is more likely to be involved when roads are important to its interests *and* no one else is funding them. Where other funders enter the market, Chinese firms may use the opportunity to turn a profit, but the government and state-owned banks will keep their distance. This section looks at the Kazakhstani section of a transcontinental highway which, despite its obvious value to China, is not very heavily Chinese-built. The same goes for a road improving access to oil-producing regions near the Caspian Sea. China's only loans for Kazakhstani roads are concentrated in the northeast, in the portion of the country which abuts China but was not covered by the transcontinental project.

The Western Europe-Western China highway is an enormous undertaking. Costing billions to connect its two titular locations, the Kazakh portion is funded by \$2.125 billion from the World Bank, \$678 million from the Asian Development Bank, \$170 million from the Islamic Development Bank, \$103 million from the European Bank for Reconstruction and Development (EBRD), and \$68 million from the Japan International Cooperation Agency (JICA) (World Bank, 2009; Asian Development Bank, 2017, pp. v–vi). The highway is potentially enormously important to Chinese interests but contains minimal Chinese con-

tent (Markey, 2020, pp. 87–88). The World Bank-funded section included two contracts to Sinohydro for \$171.4 million: not small in absolute terms, but less than 10 percent of the Bank’s \$2.125 billion budget (World Bank, 2018b). The parts funded by the smaller banks hired no Chinese firms at all (Asian Development Bank, 2017, pp. 27–28). The major multilaterals saw eye-to-eye with China on the utility of a highway, and there was no need for China to actively intervene.

Something similar happened for a small road between Aktobe and Makat. Aktobe is along the Western Europe-Western China Highway, while Makat is close to the hydrocarbon-rich Caspian Sea. The Islamic Development Bank is contributing \$273.0 million and the Asian Development Bank \$240.3 million to build the road (Asian Development Bank, 2020a). Project documentation from the Asian Development Bank (2020a) explains the motivation for the project.

The existing Aktobe- Makat road [...] connects the CAREC corridors 1b and 6a [the Western Europe-Western China Highway], as well as the capitals and administrative centers of the oil- and mineral-rich provinces of Aktobe and Atyrau, where approximately 1.7 million people live. Most of the existing road pavement is either non-existent or damaged to the extent that ordinary passenger cars cannot move faster than 30 km/hour. As a result, many vehicles divert off the road and travel on parallel dirt paths. This largely deters both passenger and freight operation from using the road. Many passengers traveling between Aktobe and Atyrau have to use infrequent railway services instead, and much goods traffic is diverted to the northern Aktobe -Oral- Atyrau route, but the detour takes more time needed with an additional distance of 360 km. Poor road connectivity has also become a key social issue contributing to the growing income disparity between rural and urban areas.

The dual concerns of resource transportation and rural-urban inequality drew two multilateral organizations to the project. China’s contribution was limited to Shanghai Construction Group’s undertaking of a \$53.1 million contract—again, as for the transcontinental high-

Figure 7.6: CITIC Construction-Built Roads in Kazakhstan



Original source: CITIC Construction (2020). English labels added by author.

way, a fraction of the total budget (Asian Development Bank, 2020c).

The only area where China did need to substantively involve itself was in the northeast, near its border but away from the southerly transcontinental project. In 2016, CITIC Construction agreed to build \$940 million in Kazakhstani roads with funding from Exim (American Enterprise Institute, 2019; CITIC Construction, 2020). A map of the roads (Figure 7.6) shows a clear pattern.

The multilateral consortium built the road between the commercial capital of Almaty and the main Chinese border crossing at Khorgos. China instead handled the less-trafficked areas to the north which the continent-spanning mega-project would not take care of on its own. A few red stretches of road appear in other spots on the map, including the political

capital of Astana, but these are not the lion's share of Chinese activity.

Rail Non-Chinese actors have been less interested in rail than road construction. Rail can move larger quantities of goods faster than highways, but it is more expensive and typically does best in areas of high population density. Kazakhstan does not fit this description, but China has other reasons to focus on rail there. Rail can move supplies more efficiently in the event of a crisis which blocks movement of goods at sea. If successful, it also has greater potential to boost the export capacity of China's less developed inland western provinces. Building a railway operating at below capacity also fits well with the "new structural economics" ideas discussed in Chapter 2. Authors such as Lin and Y. Wang (2017) aim to use infrastructure investments to slowly attract clusters of economic activity which can over time become self-sustaining. It remains an open question whether transcontinental rail will become profitable, but at least some in China are hoping for it. Geostrategic interests are clearly part of the equation, but so are commercial interests, especially as pertain to the narrowing of China's inequality between East and West.

The balance between geostrategic and commercial interests vary across both time and space. In the 2000s, before China realistically had the capacity to implement major strategic navigational projects, its involvement in Kazakhstani rail was driven by loan-backed sales of rolling stock with only limited geostrategic implications. This is similar to the pre-Belt and Road gas plant in Pakistan, which was done on much tougher terms than BRI-era plants. In Kazakhstan as well, geostrategic interests emerged to the forefront in the 2010s, and China is sinking large amounts of capital into maintaining a rail route via Kazakhstan and Russia to Europe. This stands in contrast to a more costly southern route to Europe across the Caspian, on which little progress has been made to date; and a Nur-Sultan-area light rail network, which has been implemented on much tougher terms than

the trans-Eurasian rail. I cover these events chronologically as China's ability to achieve its geostrategic aims increases over time.

China and Kazakhstan have shared a rail connection since 1991, when as the Soviet Union disintegrated a connection was established at Dostyk (the middle border crossing in Figure 7.6 (Weitz, 2013)). For most of the 1990s and 2000s, the railway was never all that active, though. In the 2000s, China took part in the post-Soviet rebound of Kazakhstani rail by contributing rolling stock. In 2002, Exim lent \$172 million for Temir Zholy, the Kazakhstani national railway, to buy rolling stock. The loan was payable over 14 years at 5.3 percent interest, a relatively high rate by Exim's standards. Temir Zholy took out another \$200 million in credit in 2006 for a similar arrangement (Dreher, Fuchs, Parks, et al., 2018). Russia, which at the time had a near-monopolistic status in Kazakhstani rail, attempted to block this second round of carriages, but credit from Exim (and the domestic Development Bank of Kazakhstan) pushed the deal through regardless (Péyrouse, 2007a, p. 39). The Russo-Chinese competition at this point was essentially about long-term market share and not geopolitics—overall Sino-Russian relations were fairly strong at this point—meaning that China faced incentives to use tough terms—in this case, tied loans—to promote its commercial interests. From China's perspective, tied loans also helped manage the political risk that Kazakhstan could back out of the deal due to pressure from Russia.

As China's power grew over time, actual achievement of geostrategic goals became more feasible. A major step in this direction occurred on its own as a byproduct of Chinese growth. In the late 2000s, Hewlett Packard sponsored a project to connect its plant in Chongqing, in inland southwestern China; to Duisburg, Germany. The line entered service in 2009, mostly using Soviet-era rail through Kazakhstan and Russia. The real difference between the Duisburg-Chongqing line and what came before was the route: it crossed

between China and Kazakhstan at Khorgos, to the south of the old crossing at Dostyk and thus on a more direct route to Kazakhstan's commercial capital of Almaty (T. Ma, 2019; Weitz, 2013). This raised the prospect of a more financially sustainable Europe-China rail connection. The hope was that rail could fill a niche as a middle tier between cheap but slow maritime shipping and fast but expensive air freight. It might also begin to attract more business as labor costs rose in China's coastal manufacturing belt and factories (like Hewlett Packard's) began to open further inland (Farchy, 2016; Hillman, 2018). If rail could become financially sustainable, then China would have a reliable, Malacca-free route to Europe in perpetuity without having to put in all that much effort in the long run.

In 2013, while Xi Jinping was visiting Kazakhstan, China announced that it would invest \$100 million in a railway terminus at the eastern port city of Lianyungang (Weitz, 2014). The announcement from the heart of Central Asia of new construction on the Pacific Coast might come across as odd, but this was the first step in connecting eastern China's logistical networks to western Eurasia. At the opposite end of China, a "dry port" opened in Khorgos in 2015. This is necessary to handle transshipment of goods between the different rail gauges used by the Chinese and Kazakhstani/Russian systems. Jiangsu province, where Lianyungang is located, contributed \$600 million in investments to "logistics and industrial zones" at the site (Farchy, 2016). The use of wealth from a developed eastern province to bolster the West indicates the railway's significance to China's commercial interests and by extension its social stability.

From a Kazakhstani perspective, this arrangement has mixed implications. On the one hand, almost all of the construction has been on the Chinese side of the border.⁴¹ A new expansion in Kazakhstan has the Port of Lianyungang and China Ocean Shipping Com-

⁴¹Technically, this domestic development finance is outside the scope of this dissertation, but I include it anyway because of its importance to international projects.

pany (COSCO) investing \$38 million to take 24.5 percent stakes apiece in a new special economic zone on the Kazakhstani side of the border, with the 51 percent majority stake belonging to the local government (Louppova, 2017; Shepard, 2017b). This small investment is much less substantive than the hundreds of millions on the Chinese side of the border, but it does avoid downside risk on the Kazakhstani balance sheet. The Kazakhstani SEZ was announced in May 2017; in January 2017, COSCO had “secured a 180 billion yuan (\$26.1 billion) financing pledge from China Development Bank to support Belt and Road projects” (Goh, 2017). Even if most of the activity is taking place on Chinese soil, the Chinese partners were assuming the relevant risk (and debt), and the benefits to Kazakhstan from trade and investment are probably the same regardless. Indeed, Dubai-based logistics giant DP World has signed a memorandum of understanding to expand infrastructure on the Kazakhstani side; DP World already operates the Kazakhstani facilities (Container Management, 2019; Sarmad Khan, 2019). China’s assumption of the lion’s share of the financial burden could be taken as a friendly gesture. With echoes of the extravagant Kigali Convention Centre (Chapter 5), the lavish “Chinese Cultural House” (中国文化馆; Figure 7.7) on the PRC side of Khorgos may be intended to convey largesse.

The most important way in which China supports Kazakhstan via the rail, though, is through subsidies, which are in effect government grants of transportation services to both domestic and international customers. Chinese provinces provide significant subsidies to incentivize shipping from their home turf. Subsidies have declined somewhat from their peak, but even in the late 2010s there were instances of empty containers being shipped just so companies could receive the subsidies. There was something of an arms race dynamic as provinces, particularly those in the West or at rail hubs, competed for shares of a fairly limited pie. At one point, Shandong province’s subsidy exceeded transportation costs by

Figure 7.7: Chinese Cultural House (中国文化馆), Khorgos



Source: Gao Guanzhong [高关中] (2018).

20 percent. This was not necessarily motivated by the central government, although the goal of developing western China was shared by Beijing. Actors connected to the central government began to respond. In 2019, China Railway limited empty containers to 10 percent cars per train (Leng, 2019; T. Ma, 2019; SinoTF [中国贸易金融网], 2019; Sun Lichao 【孙丽朝】 , 2019). The story on empty train cars was broken by Chinese investigative journalists, a rarity in contemporary China and often a sign that the government wants a problem to be addressed (Sun Lichao 【孙丽朝】 , 2019).

This does not mean, though, that subsidies have gone away. The issue is that the train is not financially viable in the short term, and even the long term is an open question. While subsidies for empty cars going to Europe may have been cut back, many cars returning from Europe are empty simply because of the trade imbalance. This problem is shared by maritime freight, but maritime freight is much cheaper. Many analysts contend that cutting subsidies in the short term would have a crippling impact on demand (Farchy, 2016; Knowler, 2019). In effect, the Chinese central government is enabling local governments to provide tied grants of freight services to trade partners, Kazakhstan included. The basic principle behind paying Chinese rail operators to move freight is the same as paying them to build, for example, a hospital overseas on a grant basis; the difference is that in this case, a service is being granted instead of a building. The private sector built the physical infrastructure on its own, but this was not enough to keep the railway financially stable and consistently operational enough to be of benefit during a crisis. So far, provincial subsidies have been enough to keep Beijing's Eurasian "strategic backdoor" running, and limited subsidies (if not outright wasteful ones) have received the central government's tacit blessing. A tougher test of the theory would come if provinces were no longer able to keep the railway afloat and the central government had to intervene, although this has not

happened to date.

While the railway to Europe is being propped up by a steady stream of grant financing, two others have been treated at greater arms-length. First, another trans-Eurasian route branching southward has received only intermittent Chinese interest and is stalled for the time being. In 2015, it was announced that a \$2.7 billion route would be built between Khorgos and Aktau, on Kazakhstan's oil-rich Caspian coast (Farchy, 2016). From Aktau, freight could be shipped across the Caspian and moved back on to rails on an existing line connecting transiting Azerbaijan, Georgia, and Turkey (Bizhanova, 2018, pp. 62–64). The logistical costs of transshipment across the Caspian are such that the route is roughly ten times as expensive as ocean shipping (Markey, 2020, p. 88). The benefit of the route is that it avoids Russia, and in particular Russian sanctions on European agricultural products imposed in retaliation for post-Crimea EU sanctions on Russia. Agricultural produce is a natural area for rail: it is relatively time-sensitive, meaning ocean shipping is not ideal, but its ratio of value to weight is not always high enough to justify air freight. Whether refrigerated produce cars can singlehandedly keep the Khorgos-Aktau line afloat is another question (Shepard, 2017a). Furthermore, major infrastructure works last for decades, and it is not guaranteed that the current geopolitical situation will last forever. The Khorgos-Aktau line may eventually be built, but at the very least China has less to gain from it than from the more efficient overland route through Russia. So, the Chinese central government has to date watched its provinces funnel resources into one rail line but has mostly ignored another.⁴²

⁴²I do not discuss rail traffic between China and Iran. China has renewed train service to Iran using existing infrastructure, mostly along Soviet-era rails. It is possible that these trains are subsidized. Because they run fairly infrequently and have less immediate upside, they receive less attention than the European trains. There has been discussion of upgrading related rail infrastructure, but this would have to wait until American sanctions are lifted. See (Duhalde, Arranz, and M. Hernandez, 2017; Goble, 2020; Xinhua, 2016a).

Then, an entirely domestic system serving the capital area of Nur-Sultan⁴³ has no immediate geostrategic value to China and exhibits high risk but could both drum up business for Chinese firms and provide something of value to the Kazakhstani leadership. The Nur-Sultan Metro has been done using more debt and has run into some of the same problems as tied loan projects in Ecuador and elsewhere. From the beginning, the project was riskier than most. The Asian Development Bank opted not to fund it due to financial viability concerns, but the Kazakhstani leadership stayed with the project in hopes of building it in time for the Expo 2017 fair in Astana (Asian Development Bank, 2013). The Metro bears some similarity to Correa's dams in Ecuador in that its motivations have as much to do with domestic politics as economic return. China again used risk management tools to enter the void. In 2015, China Development Bank committed to fund \$1.5 billion of the \$1.9 billion project at an interest rate of only 2.5 percent over 20 years (Kumenov, 2019; Satubaldina, 2019; S. Zhang, 2017). This interest rate is highly concessional compared to most CDB loans but is still more demanding of Kazakhstan than subsidies from Chinese provincial budgets as are used for the geostrategically important trans-Eurasian rail. On the other hand, the tied nature of the loan led to a lucrative payday for the builders, a consortium led by China Railway (S. Zhang, 2017). Low interests rates on a tied loan kept Chinese excess capacity at work without doing as much to harm relations with Kazakhstan.

President Nur-Sultan Nazarbayev's unexpected March 2019 resignation presented a shock to this equilibrium. China Development Bank funds had been routed through the Bank of Astana, which collapsed. Of the \$313 million which CDB had actually disbursed, \$258 million were unaccounted for (Gizitdinov, 2019). Much of this clearly came at the expense of actually completing the project. Workers for one contractor went on strike after not being

⁴³Formerly known as Astana.

paid for months, despite their employer having only \$23,000 in liabilities on the books (Kumenov, 2019). In August 2019, the city of Nur-Sultan trimmed the budget by \$350 million. In October, Nazarbayev's successor, Kassym-Jomart Tokayev, froze construction and began an investigation into corruption by city and Metro officials (Vaal, 2019). As discussed in Chapter 2, the use of debt as political patronage is extremely common in China and here may have been replicated in an overseas setting with its own history of patronage. Leadership turnover (and perhaps unsustainable levels of skimming by local officials) interfered with this relationship. The pressures of repayment also made the issue more acute than would have been the case for an equity investment or grant, which would have been better for avoiding what has become an irritant to bilateral relations. Indeed, the subsidized but geostrategically important trans-Eurasian railway has not generated these diplomatic problems; nor has the Caspian railway for which loans have not even been disbursed.

Pipeline Rail, which can transport many different types of goods, was treated as an essentially commercial project through the mid-2000s but obtained greater preferential treatment due partially to geostrategic significance thereafter. Pipelines transporting one type of good of interest also exhibit discontinuity following the mid-2000s but in a different way. Pipelines can be very expensive, and China was simply not in a position to involve itself in the business in the early 2000s while it was using loans to sell smaller volumes of locomotives and rail cars to Kazakhstan. This changed with growth in China's financial resource base and demand for commodities, though. Earlier projects tended to use third-party financing, but the share of Chinese debt has grown over time. This backs the quantitative finding that China uses debt to push firms into high-risk projects important to national interests, with the caveat that the Chinese government's ability to do so increased

over time.⁴⁴ After a brief introduction to the significance of pipelines in Chinese strategy, I cover this trend chronologically.

Pipelines from Central Asia in particular can contribute to Chinese energy security in two different ways. The more obvious way has to do with avoiding the Strait of Malacca, as has been discussed previously in this work. There are also more subtle benefits, though, from opening new sources of supply.

More important than physical security, however, is the value to Beijing of energy supply diversification. The more supply options China has, the less vulnerable it is to any single source. As China energy expert Erica Downs noted in her 2015 testimony to the US-China Economic and Security Review Commission, “China appears to have successfully used the price it pays for Turkmen gas to drive a hard bargain with Russia for the price of the gas it will import through the Power of Siberia pipeline.” (Markey, 2020, p. 89)

The Turkmen gas in question is directly relevant here: China’s pipeline from Turkmenistan transits Kazakhstan, which took on some debt to build the pipeline and earns some transit fees in return. Indeed, Kazakhstan has played a similar diversification game. Before China’s arrival, Soviet-era pipelines to Russia and Europe gave Russia a near-monopoly over Kazakhstan’s exports, with monopoly pricing to match (Coburn, 2010). Kazakhstan (and several of its neighbors) have used new opportunities to the east to negotiate better deals to the west.

Interest in doing so materialized fairly quickly after Kazakhstani independence, but actual construction (and fundraising) took much longer. Talks began in 1997, and construction of the Kazakhstan-China Oil Pipeline started in 2002 (J. C. K. Daly, 2004; Rakhmetova, n.d.; Reuters, 2002; Xinhua, 2016b). The pipeline was divided into three phase, which

⁴⁴In the quantitative model, a time binomial controlled for time-specific effects. Chinese development finance consistently increased until the financial crisis of the late 2000s and plateaued thereafter.

were not all funded the same way. The first phase built a stretch of pipeline eastward from the Caspian production hub of Atyrau. This was a 51-49 joint venture of KazMunayGas (KMG), the Kazakhstani national energy company, and China National Petroleum Corporation (CNPC) (European Bank for Reconstruction and Development, 2005). China was a (large) minority shareholder and contributed little to financing: most of the \$190 million project's funding came from \$150 million in private eurobond issues (Reuters, 2002). Indeed, funding was enough of an issue that KMG later restructured via an \$81.6 million loan from the European Bank for Reconstruction and Development (European Bank for Reconstruction and Development, 2005). Even as funding materially delayed the project, help came more from Europe than China.

This pattern changed only minimally for the second phase, which in 2004 began to work westward from the Chinese border at Alashankou. Funding still came from third parties, in this case \$600 million from JP Morgan and \$600 million in Eurobonds. The JP Morgan loan was guaranteed by CNPC, meaning that China was indirectly taking on some financial risk (Rakhmetova, n.d.). The ownership structure shifted slightly but significantly: the slim Kazakh majority became an even 50-50 divide for the second phase (Kazakhstan-China Pipeline, 2019). Majority ownership was reportedly a major sticking point in negotiations for the first phase, and the extra one percent ownership does give China more say in governance of the company, if not reliably so in an atmosphere with weak rule of law (J. C. K. Daly, 2004). As China grew stronger, it was contributing slightly more funding, if only in an indirect way, and asking for slightly more in the way of financing conditions.

By 2008, China was in a much stronger position to contribute to funding for the third phase of the pipeline. The Industrial and Commercial Bank of China (ICBC) and the Netherlands' ING Bank cofinanced a \$1.18 billion line of credit for the third, middle phase connecting

the completed western and eastern stretches. Kazakhstan again opted to later refinance, but this time, Chinese interests were able to handle the burden themselves. In 2013, ICBC extended \$300 million in credit to refinance the original loan. The refinancing trimmed the interest rate from six-month LIBOR plus 4 percent to six-month LIBOR plus 3.75 percent. These rates are not drastically different from those carried by KMG's commercial paper: four months prior to the rescheduling, KMG had issued bonds at 4.4 percent interest over ten years, the same term carried by the original ICBC-ING loan (KazMunaiGas, 2018, pp. 107–110). Based on LIBOR at that point in time, ICBC's interest rate dropped from 4.4 percent (the same as the bond yields) to 4.15 percent.⁴⁵ It may be that China wished to present a friendlier face than impersonal international markets, that a successful bond issue gave KMG leverage, or both. Regardless, this episode fits a similar pattern to that seen for many geostrategically important cases in Pakistan: using debt to encourage firms to take on projects, but doing so at terms that do not strain relations with the host government. This reflects the mixed incentives to maintain good relations with geostrategically important countries through laxer terms (H3A) but also to use enough risk management tools to encourage firms to enter (H3B).

As the Kazakhstan-China Oil Pipeline was in its later phases, China began to turn its attention to gas. This in and of itself is a byproduct of China's growth: wealthier Chinese citizens and factories both use more (mostly coal-fired) electricity than their predecessors and are more likely to pressure the government to address the resulting air pollution (Zha, 2010, p. 9). Natural gas is one part of the government's response but due to limited reserves at home is largely imported. In October 2008, two months after the loan for the third phase of the oil pipeline, the China Development Bank lent \$7.5 billion for the Kazakhstani phase

⁴⁵Based on a six-month LIBOR rate of 0.397 at the beginning of August 2013, the month in which the rescheduling was issued. LIBOR data per Federal Reserve Bank of St. Louis (2020).

of the China-Central Asia Gas Pipeline, which carries Turkmenistani gas through Uzbekistan and Kazakhstan before reaching China. China set up 50-50 joint ventures in each of the three countries, with Kazakhstan and Uzbekistan receiving transit fees for gas brought across their territory from abroad (Cooley, 2015, p. 2; KazMunaiGas, 2018, p. 110). The 50-50 joint venture modality was the same as for the latter two phases of the oil pipeline, but the funding arrangements were different. This time, a Chinese bank was not sharing the burden with a private European-based multinational. The use of China Development Bank is also significant: as a policy bank, it comes with stricter pro-Chinese procurement requirements than the commercial bank ICBC. On the other hand, this being a policy bank with some latitude to lose money, the interest rates were lower, ranging between 2.15 percentage points to 2.9 percentage points above three-month LIBOR. The “Chinese characteristics” in Chinese financing were emerging over time: banks risking their own balance sheets in the name of national interests, but also using tough procurement rules to ensure that firms do not share their sacrifice.

The most recent pipeline was similar to the China-Central Asia Gas pipeline, with the exception of taking place entirely within Kazakhstan and using Kazakhstani gas. The Beineu-Shymkent Gas Pipeline connects Caspian gas fields to existing pipeline infrastructure near Almaty. In 2012, CDB (again) entered, this time with \$1.8 billion in credit to a similar 50-50 joint venture. The interest rates were higher than for the Turkmen pipeline, ranging between 2.35 and 3.45 percentage points above three-month LIBOR, although this may simply reflect a longer loan term of sixteen years as opposed to the Turkmen project’s ten (KazMunaiGas, 2018, p. 110). Interestingly, a 2018 project to expand the completed pipeline was backed not by China but by the EBRD, for 300 million euros (at that point, US \$357 million) (European Bank for Reconstruction and Development, 2018; Rights in De-

velopment, 2019). Depending on one's perspective, this could be either evidence that China never completely edged out the competition or that its own domestic slowdown and falling oil prices by the late 2010s limited its propensity to spend on pipeline infrastructure.

This same basic story—rising Chinese influence in the 2000s, and perhaps a dip in activity in the late 2010s—is even more readily observable in upstream oil and gas production. The next section addresses this topic.

7.2.2.3 Upstream Oil and Gas

Chapter 3 predicted that there could be two causal mechanisms linking governance and development finance stringency—1) Chinese demand for stricter risk management tools in difficult environments; and 2) the ability of financiers to impose terms in higher-risk markets avoided by most others. The pipeline sector demonstrates the former, as China used tied loans to counteract governance risk to its firms. The latter, though, is tougher to observe. Russia was clearly a competitor in that it owned the network of pipelines moving oil and gas westward, but by dint of geography Russia and China never actively competed for the same projects. They do compete, however, for production sites, as do some Western multinationals. This section traces the history of Chinese involvement in the upstream sector. In the 1990s and early 2000s, China struggled to gain a foothold in Kazakhstani oil and gas production, frequently losing bids to more established rivals. This began to change with its deepening pockets in the mid-2000s, and the tables turned completely with the financial crisis in 2008.

Table 7.4 lists known Chinese investments in Kazakhstan oil and gas production.

Table 7.4: Chinese Upstream Oil and Gas Investments in Kazakhstan, 1997-Present

Name	Year	Contract Value (mil. USD)	Investor	Equity Stake (Percent)	Equity Partner	Debt (mil. USD)	Lender
Aktobe Munaigaz	1997	4,615	CNPC	85	Aktobe Munaigaz		
Big Sky Energy	2003	160	Sinopec	85	First International Oil		
North Buzachi	2003	210	CNPC	50	Lukoil		
Konys and Bektas	2004	160	Zhenhua, CNPC	75, 25			
Aryss and Blinov	2005	160	CNPC		AyDanMunai		
Dharkan exploration	2005		CNOOC, Sinopec		KazMunayGas		
PetroKazakhstan	2005	4,180	CNPC	67	KazMunayGas		
Nation's Energy	2006	1,910	CITIC	50	KazMunayGas		
Tarbagatay Munay	2008	40.2	Xinjiang Guanghui	49	Tarbagatay Munay		
KazMunayGas	2009	3,700	CNPC	50	KazMunayGas	3,700	CDB
MangistauMunaiGas	2009	1,300	CNPC	50	KazMunayGas	1,300	CDB
Khashagan	2009	940	CITIC	11	KazMunayGas		
Khashagan	2013	5,300	CNPC	8.3	KazMunayGas		

Continued on next page

Table 7.4: Chinese Upstream Oil and Gas Investments in Kazakhstan, 1997-Present

Name	Year	Contract Value (mil. USD)	Investor	Equity Stake (Percent)	Equity Partner	Debt (mil. USD)	Lender
Caspian Investment Resources	2014	1,090	Sinopec	50			
Maten Resources	2014	526	Geo-Jade Petroleum	95			
KoZhan	2015	320	Geo-Jade Petroleum	100			

Sources: American Enterprise Institute (2019), China Knowledge (2009), Erica Strecker Downs (2000), Dreher, Fuchs, Parks, et al. (2018), Q. Li (2015), O'Neill (2014b), and Péyrouse (2007a).

Some basic trends in the data are worth pointing out before proceeding to in-depth case-by-case analysis. First, equity investment predominates. Despite Kazakhstan's flawed institutions, a post-Soviet "gold rush" meant that there was ample competition for its oilfields, meaning China was never in a position to impose resource-backed loans. There is a reasonably strong parallel with Ecuador before Moreno, where the government had a track record of renegeing on deals but not to the extent that investors began to back out. The 2009 KazMunayGas and MangistauMunaiGas deals were part of a leveraged equity deal in which CDB simultaneously backed the acquisition of oil assets and unrelated development projects. This was labeled as a "loan-for-oil" in several press outlets but is not the same as the actual collateralization arrangements observed in Ecuador and elsewhere (W. Lee, [2009](#); Xinhua, [2009](#)).

Second, there was a clear uptick in large multi-billion dollar investments following the 2005 acquisition of Canada's PetroKazakhstan by CNPC. This deal marked a turning point in China's ability to keep up with the Russian and Western competition: before this, there were a series of failed bids for large deals. These "dogs that didn't bark" are more difficult to observe and I do not include them in the table, but the known examples are informative and will be included in the detailed analysis that follows.

China's first major entry into Kazakhstani oil and gas was the 1997 purchase of 60 percent of Kazakhstan's fourth-largest producer, Aktobe Munaigaz, by CNPC. This was tied from the beginning to the Kazakhstan-China Oil Pipeline. China pledged \$4.3 billion in investments over twenty years as well as the assumption of \$71 million in debt and a feasibility study for an eastbound pipeline. The debt assumed was small as compared to the total planned investment but appreciably large next to the \$320 million paid up front (Erica Strecker Downs, [2000](#), pp. 15–16). In 2003, CNPC purchased another 25 percent of the

company for \$150 million, a price clearly not commensurate with the \$4.3 billion pledged for the first 60 percent. Indeed, CNPC itself originally valued the second deal at \$600 million. It later emerged that in addition to the \$150 million sale price, roughly \$165 million of CNPC's funds found their way to a British Virgin Islands company controlled by the president's son-in-law.⁴⁶ This is not an exclusive indictment of Chinese business interests—in another high-profile case, American investors allegedly did something similar—but it does indicate the risks involved in doing business in Kazakhstan, especially in the immediate post-communist era (Cooley, 2012, pp. 139–40). In this instance, graft may have played in China's favor by deflating the purchase price, but unpredictable officials could just as easily change their minds and leave CNPC with no legal recourse. As we shall see, this negative scenario for China did later take place.

Two subsequent Chinese deals were not to happen. In 1997, around the same time as the successful Aktobe Munaigaz entry, CNPC also bought a stake in the Uzen oilfield, with \$400 million short-term and \$900 million long-term in investments planned Erica Strecker Downs, 2000, p. 16. This deal fell apart for reasons that had little to do with Kazakhstani governance: American sanctions scuttled a plan to build a pipeline to Iran, and reserves at the site were not what China had hoped for (Péyrouse, 2007a, pp. 51–52).

A failed 2003 deal, though, had more negative overall ramifications. CNOOC and Sinopec intended to buy one-twelfth apiece of the enormous Kashagan oilfield from the UK's BG Group. Even these modest percentages would have cost \$615 million to each firm (China Daily, 2003). This would have been the largest deal since 1997 but was foiled by a group of Western shareholders' exercise of the right of first refusal to allow transfer of the shares. An angered President Nazarbayev responded by revoking a previously agreed tax exemption

⁴⁶A detailed accountinng of the complex transaction by which this took place can be found in Cooley (2012, pp. 140–42).

but was in no position to do more to drive away the investors, a group of heavyweights made up of Shell, ExxonMobil, Total, and Eni (Roberts, 2003, p. 95; Cooley, 2012, p. 137). The Kazakhstani oil and gas sector was only partially operating according to the rule of law, and the raw balance of power tended to favor the incumbents. Péyrouse (2007a, pp. 47, 52) sees this as China being locked out of Kazakhstan's most lucrative project.

Over the course of 2003 and 2004, China did find its way into a series of smaller deals. The North Buzachi oilfield (\$210 million), Big Sky Energy (\$160 million), and the Konys and Bektas oilfields were footholds, albeit much more limited ones than Kashagan would have been. The Big Sky deal was especially useful in that Houston-based Big Sky had often worked with Russian firms and could present a bridge for Sinopec to Russian business interests (Péyrouse, 2007a, p. 55).

Still, a major change of fortunes had to wait until the CNPC's 2005 purchase for \$4.18 billion of Canadian-incorporated PetroKazakhstan. There were elements of both victory and defeat in this deal. On the plus side, CNPC had secured a major Kazakhstani asset for the first time in eight years, reportedly outmaneuvering formidable rivals in India's Oil and Natural Gas Corporation (ONGC) and Russia's Lukoil (Cooley, 2012, p. 137; T. Miller, 2017, Chapter 2). PetroKazakhstan constituted 12 percent of Kazakhstani oil production. Its purchase was the biggest overseas deal in Chinese history at that point and made Kazakhstan CNPC's second-largest overseas production site, following Sudan. On the other hand, the unpredictability of the Kazakhstani regime here turned against CNPC where it had supported them in 1997. Kazakhstan's legislature threatened to block the deal and ultimately enforced the transfer of 33 percent of shares back national oil and gas firm KazMunayGaz. (The original deal had been for CNPC to buy 100 percent of the shares.) They also forced PetroKazakhstan to sell off its strongest refining asset (Péyrouse, 2007a,

pp. 53–54; O’Neill, 2014b, p. 152). The deal went through with the required modifications but led many in the PRC to quietly reassess Kazakhstan’s political risk profile. An investor guide from the State Taxation Administration of China [国家税务总局] (2019, p. 16) makes a thinly veiled reference to the incident. The Kazakhstani perspective was that the country needed to preemptively act to ensure that their interests were taken into account, in particular the transfer of know-how and technology to locals (Orazgaliyev, 2018). While it is true that Kazakhstan did act before a deal was finalized rather than after the fact, the law requiring transfer of the shares was passed *ad hoc* in response to the companies’ announcements, and it is not clear that CNPC or the government in Beijing would have seen this as an instance of restraint on the part of the Kazakhstani government.

China’s mixed success in buying PetroKazakhstan carried forward into future deals. The following year, sovereign wealth fund CITIC bought the Kazakhstani assets of another Canadian firm, Nation’s Energy, for \$1.91 billion (American Enterprise Institute, 2019). In this instance, CITIC gave national oil firm KazMunayGas (KMG) an option to buy half of the shares plus one, and KMG exercised the option the following year (O’Neill, 2014b, p. 153). As Orazgaliyev (2018) points out, Kazakhstan had understandable reasons to want to exert some influence over its own resources and surrounding technology and skills, but in the absence of stable rule of law, foreign investors could not be sure that the government would not try to further these goals through extralegal means. O’Neill (2014b) sees giving Kazakhstan majority ownership of this and many other projects as meant to preemptively ward off any future encroachment. In effect, political risk was lowering the amount of space available for equity investment without completely eliminating it. As part of the deal, CITIC via its subsidiary CITIC Construction agreed to enter into a joint venture with KMG to contribute to building an asphalt refinery. The \$290 million facility was funded

by \$232 million in credit from the Bank of China, a commercial bank which unlike the policy banks was legally able to loan to a 50-50 Chinese-Kazakhstani joint venture with a similarly mixed group of construction contractors (Ospanova, 2014; Dreher, Fuchs, Parks, et al., 2018; KazMunaiGas, 2018, p. 109). Partially Kazakh-owned and Kazakh-built, the asphalt refinery contributed to national goals of industrial upgrading beyond raw materials. CITIC's agreement to build the plant on favorable terms could be seen as similar as its slight minority partnership in oil production. At the same time, Kazakhstan was able to enforce these terms at least partially because of the presence of competition: if the CITIC deal had failed, then the assets would have simply reverted to Canadian ownership. Kazakhstan's institutions do create risk for investors and curtailed the volume of capital that CITIC could contribute, but they are also not so risky that CITIC or others have completely vacated. This sets Kazakhstan apart from Moreno-era Ecuador or other highly risky countries where most non-Chinese firms have looked to the exits and China resorts to debt, sometimes with resource backing.

Following these deals, Chinese firms owned somewhere in the neighborhood of 40 to 50 percent of Kazakhstani oil production.⁴⁷ Having accomplished much in a short time, Chinese firms rested and consolidated their gains until an opportunity came with the 2008 financial crisis, which sent oil prices and most multinational oil investment downwards (T. Miller, 2017, Chapter 2). Three post-crisis deals illustrate variation in how Chinese firms were able to fill the void. To be specific, large state-owned firms with better access to capital were able to make use of debt, while a private Chinese firm—the first to appear in this narrative—had less such access. The private firm illustrates what could happen in the absence of the major state support which enables giants like CNPC to continue to expand

⁴⁷The exact number is publicly understated because of political sensitivities (Cooley, 2012, p. 92).

during downturns.

The private firm came first. In December 2008, as oil prices approached what was to the bottom of a months-long tailspin, Xinjiang Guanghui bought 49 percent of Kazakhstan's state-owned Tarbagatay Munay for 250 million RMB, or US \$40.5 million. Tarbagatay Munay owns both oil and gas assets associated with the Zaysan oilfield (China Knowledge, 2009). As for the immediate previous deals, Kazakhstani interests maintained a narrow majority. The deal remained much smaller, though, indicating the private sector's much-diminished status in the state-dominated Chinese oil sector. The deal's denomination in renminbi may suggest less access to foreign exchange, a scarce commodity given China's capital controls. Xinjiang Guanghui in 2014 became the first private Chinese firm to receive an import license (Du, 2014). Guanghui also built a liquefied natural gas plant across the border in its home province of Xinjiang. Details of the plant reveal a similar lack of funding or economies of scale relative to the state-owned competition. Instead of a pipeline, Guanghui uses trucks to transport gas from Kazakhstan to Xinjiang. Tarbagatay Munay has also taken a 10 percent stake in the Xinjiang plant and the option to buy 14.9 percent more at \$37.5 million (Reuters, 2008a). Kazakhstani capital moving into China has not been observed in the state-owned sector, where foreign participation is limited and access to bank credit makes it unnecessary. It is also worth noting that Xinjiang Guanghui is not a small firm. In addition to being the first Chinese private firm to win an oil import license, it is also one of the province's largest companies, holding a market capitalization of \$2.49 billion⁴⁸ and even sponsoring Urumqi's Chinese Basketball Association team.⁴⁹ Still, its position in China's state-centric, bank-centric domestic political economy meant that it had

⁴⁸17.799 billion renminbi as of May 28, 2020. See Yahoo! Finance (2020).

⁴⁹Xinjiang Guanghui made a second purchase of Kazakhstani upstream assets in 2012, but it folded in 2018 due to lower-than-expected oil quality (Tao Ziwei [陶子薇], 2018).

less access to some of the risk-management tools used by state firms.

The state-owned sector, on the other hand, was able to make use of access to capital to push much larger deals. Sovereign wealth fund CITIC in 2009 succeeded where CNOOC and Sinopec had failed in 2003—it bought 11 percent of the Kashagan oilfield for \$940 million (O'Neill, 2014b, p. 153; American Enterprise Institute, 2019). This is a more favorable deal for China than the roughly \$1.2 billion offered by CNOOC and Sinopec in 2003 for a larger percentage (12.5 percent) of the asset. This deal was kept relatively quiet at the time but apparently was not blocked by any of the other shareholders. An even larger and more illustrative package deal came in April 2009. This time, \$10 billion in debt was involved. Of this, \$5 billion was a loan from CNPC to KazMunayGas (KMG). This portion of the deal financed CNPC's purchase of 50 percent of KazMunayGas, which then used \$1.3 billion of the proceeds to establish a \$2.6 billion joint venture with CNPC to buy out MangistauMunayGas (MMG). In keeping with precedent, KMG held a one-share majority of the MMG joint venture. Then, the other half of the \$10 billion in financing was a loan from China Development Bank to Kazakhstan Development Bank (Cooley, 2012, p. 92; O'Neill, 2014b, pp. 151–53). It is still unclear what this credit was used for. As one person interviewed by O'Neill (2014b, p. 153), put it, “Who knows where that money is going?”

It is not clear how many other actors would have had the access to capital or the risk appetite to buy out almost half of a national oil company during a downturn and provide billions in no-strings-attached credit to boot. Indonesia's Central Asia Petroleum, whose shares in MMG were bought out, certainly did not. The heft of the deal bears comparison with oil-backed packages like those in Ecuador, although there are crucial differences. The Kazakhstan loans were part of a deal by which a Chinese oil major gained an equity stake

in upstream operations, but they were not actually collateralized in oil. For the \$5 billion to KMG, the equity stake also means that CNPC is responsible for repaying almost as much debt as KMG. For the other \$5 billion (to the Development Bank of Kazakhstan), the total lack of clarification of the use of funding gives the appearance more of a blank check than a strict loan deal. This is a less demanding form of finance than that implemented in Ecuador. This is partially because while the 2008-2009 recession did dampen investor enthusiasm in Kazakhstan—Markey (2020, p. 90) sees Russian firms' retrenchment as particularly relevant—it did not damage it to the degree that Correa's policies did for Ecuador. Kazakhstan could have said no to oil collateralization. Even absent the recession, China might not have wanted to place undue strain on its relations with Kazakhstan due to its geostrategic significance. Within the oil and gas sector, China was at that point already using debt to build the Kazakhstani stretch of the gas pipeline from Turkmenistan and could ill afford to upset the Kazakhstani leadership.

There were several years of calm following the post-recession shopping spree, but another flurry of deals took place from 2013 to 2015. This time, the Chinese private sector gained in strength. Private firms still lagged far behind their state-owned peers, but their ability to make an appreciable impact overseas in their own right is a sign of China's overall increasing strength *vis-à-vis* international competitors.⁵⁰ In 2013, CNPC followed CITIC's lead and acquired an 8.3 percent stake in the Kashagan oilfield for \$5 billion. ConocoPhillips was selling its stake, and India's ONGC had bid. In response, the Kazakhstani government exercised its right of first refusal, purchased the stake itself, and resold it to CNPC for a profit (T. Miller, 2017, Chapter 2). This deal followed the pattern established by prede-

⁵⁰China's market liberalization largely halted after Xi Jinping's 2013 inauguration. To the degree that private firms' gains were because of domestic reform, it would have been reforms made in prior years, and even these were limited.

cessors in that 1) China had deeper pockets than its competitors; and 2) the Kazakhstani government made sure to receive a cut of the proceeds. Indeed, CNPC's \$5 billion for 8.3 percent of the oilfield exceeds the amount paid by CITIC for 11 percent, although some of this may have been because oil prices had risen in the interim. Any excess value in the deal may also have been meant as anti-expropriation carrot to the Kazakhstani leadership similar to the majority shares preemptively offered to the government in other instances.

The following year, the private firm Geo-Jade Resources made its own entrance by buying 95 percent of Kazakhstan's Maten Resources for \$526 million (American Enterprise Institute, 2019; Q. Li, 2015). Like Xinjiang Guanghui, Geo-Jade meant to eventually gain an oil export license. It would be in a position to do so: at some points in time, it has been the largest listed private oil firm in China (Q. Li, 2015). In 2015, Geo-Jade added another asset with \$320 million acquisition of 100% of Kazakhstan's KoZhan (American Enterprise Institute, 2019; ChinaGoAbroad, 2015). Geo-Jade has upstaged previous private Chinese investments in Kazakhstan, and even its name indicates some ambition: its Mandarin name, *Zhouji* (洲际), literally translates to "intercontinental." This does not mean, though, that the Chinese private sector has substantially closed the gap with its public competitors. Also in 2015, "Big Three"⁵¹ state-owned oil firm Sinopec bought a 50 percent stake in the Caspian Investment Resources joint venture from Lukoil. This is certainly a sign of the state-owned financial sector's strength and possibly a sign of Chinese advance into a void left by struggling Russian firms—this was not long after the invasion of Crimea and Western sanctions on Russia. Geo-Jade's investments were also dwarfed by CNPC's \$5 billion purchase, but they still registered on the map *vis-à-vis* international competitors, in keeping with China's strengthened profile across the board.

⁵¹ CNPC (PetroChina), CNOOC, and Sinopec collectively control most of China's oil and gas sector.

Overall, China's ability to assert itself in the Kazakhstani upstream oil and gas industry increased over time with its own wealth and the relative decline of Russian and Western competitors, but this did not translate into dictating terms as many of the same Chinese banks and firms did in Ecuador. The competition in Kazakhstan never fully receded, and upsetting the Kazakhstani leadership with demanding terms might have endangered important geostrategic interests. As a result, China generally remained with equity investment, but at reduced ownership percentages in preemptive deference to the apparent risk of host government encroachment. Even in the one instance in which debt was involved, it was used to leverage equity investments in an arrangement in which China held part of the concerned financial risk and Kazakhstan had a free hand with \$5 billion in credit.

While central to the Kazakhstani economy, oil is not the country's only commodity. The next section applies a similar analysis to two smaller sectors: uranium and metals.

7.2.2.4 Mining

The uranium and metals sectors differ from oil and gas and from each other in two major ways: 1) their relative importance to Kazakhstan; and 2) the strength of sector-specific domestic institutions. I cover each of these two points and how they affect development finance stringency before going into details of Chinese deals in the uranium and copper sectors.

Oil and gas are by far more important to the Kazakhstani economy than are uranium or copper. As of 2017, crude oil constituted 42.9 percent of Kazakhstan's exports; natural gas, 4.8 percent. Of the largest metals exports copper made up only⁵² 7.7 percent of exports; ferroalloys, 4.2 percent; and uranium, 3.7 percent (Simoes and Hidalgo, 2011). China has

⁵²Includes both copper ore (2.2 percent of total exports) and refined products (5.5 percent).

been involved in the production of all three of these minerals and has generally imposed tougher terms there, especially for copper and ferroalloys, than for oil and gas. It may be that the damage to bilateral relations from these smaller areas of the economy was simply manageable, while the fallout from tough treatment of critically important oil and gas investments might not have been.

Any disposition China might have to safeguard its commercial interests via stricter terms, though, is also contingent on the quality of local institutions, which exhibit important variation by sector. In uranium, Kazakhstan has a long track record of cooperation with foreign firms. Russian and Japanese interests have a particularly strong presence. Canada's Cameco and France's Areva have invested in a mine apiece as well (World Nuclear Association, 2020b). There have been controversies—notably, the 2009 buyout of Canada-based Uranium One, which holds significant assets in Kazakhstan, by Russia's Rosatom carried significant geopolitical overtones of a type which might cause investor jitters.⁵³ Still, this type of risk would not be totally alien to investors in the oil and gas sector or other areas where Kazakhstan successfully draws foreign investment. Like their fossil fuel counterparts, uranium firms have mostly stayed in Kazakhstan, typically as minority or 50 percent shareholders in joint ventures (World Nuclear Association, 2020b).

Kazakhstan's metals industry has generally exhibited higher levels of risk. China has been involved in both the copper and ferrochrome industries, both of which exhibit similar patterns of market centralization under monopolies or oligopolies with weak corporate governance. For copper, the private company Kazakhmys owns 72 percent of domestic reserves (Global Business Reports, 2015). Monopolies to begin with generate well-known prob-

⁵³The former head of Kazatomprom was arrested on corruption charges while he was fighting against the deal. Many outside observers saw him as a political prisoner until his 2020 release (Radio Free Europe / Radio Liberty, 2020; Sorbello, 2020).

lems for other market participants, and this particular monopoly is state-connected. Former chairman Vladimir Kim has always held a substantial stake in the company, although the exact percentage has fluctuated over time and has sometimes been shared with Kazakhstan's sovereign wealth fund. He reportedly enjoys close ties to President Nazarbayev. In 2001, he testified in a Kazakhstani court that he had previously been forced to pay bribes to Nazarbayev; the following year, he was nevertheless named a member of Nazarbayev's party's political council (Ferreira-Marques, 2012; Global Witness, 2010; MacNamara, 2010). Another controversy emerged when in 2009 it came to light that Kim and CEO Oleg Novachuk had pledged 9 percent of the company's total shares against personal loans (Onstad, 2009; Peaple, 2013). The ferrochrome sector has a similar problem and is largely controlled by state-owned or state-connected interests. China has done business with the Eurasia Natural Resources Corporation (ENRC), which in 2013 delisted itself from the London Stock Exchange while under investigation in the UK for corruption. It was 26 percent owned by Kazakhmys, which sold off its shares to a new group including Kazakhstan's sovereign wealth fund (Goodley, 2013; Wilson, 2013).

Foreign investment in the copper and ferrochrome sector has lagged. As recently as 2015, one trade publication was touting Rio Tinto's \$6 million exploration agreement as a leading achievement in attracting foreign investment to copper (Global Business Reports, 2015). The ferrochrome sector overall has done better, but ENRC in particular has not, in no small part due to corporate governance concerns (Neate, 2011).⁵⁴ In the presence of high risk and the absence of many interested parties, China has both the motive and the ability to impose tougher terms. Given the secondary nature of copper mining to Kazakhstan's economy, this would not necessarily affect bilateral relations as much treatment of the oil sector. Before

⁵⁴See also M. Castro and Aalto (2018).

looking at individual metals deals, I first look at the uranium sector.

Nuclear In 2007, the state nuclear firm Kazatomprom agreed to invest in two uranium mines via joint venture. One mine was done via 51-49 joint venture with China Guangdong Nuclear, with Kazatomprom holding the larger stake; the other was done with China National Nuclear with the same percentage stake (World Nuclear Association, 2020b). In 2017, China National Nuclear further agreed to contribute a fuel processing facility, Kazakhstan's first, again using a 51-49 joint venture (A. Chen and Rose, 2015; Markey, 2020, pp. 89–90). Apart from this, less information is publicly available about these deals, but the basic fact of equity investment is meaningful. This was not an option in Pakistan, a nuclear weapons state in which the government maintains tight control over nuclear power, but is an option in Kazakhstan. The 49 percent arrangements are similar to Chinese engagement in the oil sector.

Metals Much more information is available about Chinese engagement in the metals sector, and it is strikingly debt-heavy. Two of the three deals by Chinese interests have directly involved the private but well-connected giant Kazakhmys. The first was a 2009 loan for \$2.7 billion to open new mines at Boschekul (copper) and Bozymchak (copper and gold) (Dreher, Fuchs, Parks, et al., 2018). The terms were fairly tough. The fifteen-year loan carried an interest rate of LIBOR plus 4.5 percent—roughly 5.36 percent at that point, with the likelihood of future increases given the low interest rates of the post-crisis period (Nurshayeva, 2010; Kaz Minerals, 2020, p. 49).⁵⁵ This being a China Development Bank loan, a Chinese firm (China Nonferrous) received the contract to build a concentrator at Boschekul (China Nonferrous Metal Mining, 2014).

⁵⁵Based on one-year LIBOR of 0.85906 at the date of the Nurshayeva (2010) article per data from Federal Reserve Bank of St. Louis (2020).

The following deal broke with precedent and was carried out as a 51-49 joint venture more similar to those typical of the oil and uranium sectors. In 2010, Jinchuan formed a joint venture with Kazakmys to develop the Aktogay copper deposit, which like the previous two was undeveloped (Onstad, [2010](#)). This was much smaller than the debt deal, though: Jinchuan paid \$120 million for its 49 percent share. Still, the deal had a relatively high debt footprint. China Development Bank supported it with two loans of US \$1.34 billion and RMB \$1 billion—approximately US \$158 million. The renminbi component was 100 percent tied, placing it above the usual threshold of 70 percent for China Development Bank loans (Dreher, Fuchs, Parks, et al., [2018](#)). The interest rates ticked downward from the last deal, now at LIBOR plus 4.2 percent for the dollar component and at the People's Bank of China (PBOC) benchmark for the renminbi component (Kaz Minerals, [2020](#), p. 49). At the time, this came out to 5.19 and 5.94 percent, respectively, implying a rise in interest rates relative to the previous deal for the RMB component but a slight drop for the much larger USD component.⁵⁶

The third deal was again entirely debt. In February 2011, China Development Bank lent \$2 billion to ENRC. Of this, \$1.6 billion was for iron mining and \$400 million for ferrochrome. (Kazakhstan domestically processes much of its iron production into steel and other alloys.) In a sign of the company's relationship with the state, the money was routed through Kazakhstan's sovereign wealth fund (Nurshayeva, [2011](#)). Apart from the risk of state encroachment, this was a high-risk deal due to factors within the company. There was a struggle within the board of directors over the continuing influence of the company's founders, 1990s-era oligarchs who had technically renounced their positions in the company but allegedly ruled by proxy. Months after the Chinese loan, the independent directors

⁵⁶Based on one-year LIBOR of .99313 percent per Federal Reserve Bank of St. Louis ([2020](#)) and People's Bank of China long-term benchmark of 5.94 percent per People's Bank of China [中国人民银行] ([2015](#)).

were kicked off the board (Neate, [2011](#)).

Debt was reserved for a particularly risky sector of Kazakhstan's political economy in which tougher terms might be overlooked so long as Kazakhstan's primary interests in oil and gas received more favorable treatment. Indeed, even smaller sectors like uranium were targeted using equity investment so long as risk remained tolerably low. The next section finds similar patterns across the productive sectors of agriculture, industry, and finance.

7.2.2.5 Agriculture, Industry, and Finance

Like many developing countries, Kazakhstan hopes to increase its share of value added to its domestically produced commodities by attracting basic industry. Its relative scarcity of labor but abundance of raw materials mean that is a natural candidate for heavy industries such as steel and cement in which China has excess capacity it intends to offshore. Kazakhstan's relative abundance of land also presents opportunities for growth in agriculture and agro-processing. A deeper financial sector could improve the prospects of all the above.

Industrial upgrading has some domestic political significance in Kazakhstan as the end goal of the Nurly Zhol infrastructure drive beginning in 2014. So, Chinese activity in industrial sectors could be seen as an exercise in bilateral relationship-building, albeit of a different type from the more elite-focused oil industry. This section looks at differences between productive-sector projects and finds familiar patterns based on governance risk. The presence of Kazakhstani state-connected groups like ENRC is correlated with a higher debt burden to protect against the additional risk, but recipient-friendly equity tends to prevail elsewhere. Table [7.5](#) lists known projects to date.

Table 7.5: Chinese Projects in Kazakhstan Productive Sectors, 1997-Present

Name	Year	Sector	Chinese Firm	Value (mil. USD)	Lender	Loan Amount (mil. USD)	Ownership
Kazakhstan Aluminium Smelter	2005	Metals	China Nonferrous	300	Exim	292.8	ENRC
Vicat cement plant	2008	Cement	China National Building Material	300	Banca Intesa, Calyon, Crédit Industriel et Commercial, and Société Générale (110); IFC (50)	160	Vicat (60%), Kazkommerts (30%), IFC (10%)
Electrolytic plant	2010	Metals	China Nonferrous	1,020	Exim	400	ENRC
Potash mining and fertilizer plant	2014	Agriculture, Mining	CITIC Construction	550	ICBC		Kazakhstan Potash
Altyn Bank	2016	Finance	CITIC	110			CITIC (50.1%), China Tobacco (9.9%), Halyk Bank (40%)

Continued on next page

Table 7.5: Chinese Projects in Kazakhstan Productive Sectors, 1997-Present

Name	Year	Sector	Chinese Firm	Value (mil. USD)	Lender	Loan Amount (mil. USD)	Ownership
Shieli Cement	2016	Cement	China Triumph International	178	ICBC	129	Gezhouba (70%), Kazakhstan Darnak (30%)
Aktobe Steel	2017	Metals	Norinco	710			Aktobe Steel Production
Astana International Exchange	2018	Finance	Shanghai Stock Exchange				Shanghai Stock Exchange (25%), Silk Road Fund (5%), Goldman Sachs (4.1%)
CITIC beef	2018	Agriculture	CITIC Construction	600			CITIC, Kazakhstan Meat Union
Nylon plant	2018	Agriculture, Plastics	Cathay Industrial Biotech	2,500			KazAzot
Paper mill	2018	Paper	Qifeng New Materials	160			

Continued on next page

Table 7.5: Chinese Projects in Kazakhstan Productive Sectors, 1997-Present

Name	Year	Sector	Chinese Firm	Value (mil. USD)	Lender	Loan Amount (mil. USD)	Ownership
Saryarka AvtoProm	2018	Automotive	China National Machinery Import and Export (CMC)	1,100			CMC (51%), AllurGroup (49%)
Kazmeal	2019	Agriculture	China Cloud Copper				China Cloud Copper (50%), Kazmeal (50%)

Sources: American Enterprise Institute (2019), Asia Miner News (2014), Aueyev (2017), Batyrov (2017), Business Wire (2009), China Cloud Copper Company [中铜业有限公司] (2019), China Gezhouba Group (2016), Dreher, Fuchs, Parks, et al. (2018), Embassy of the People's Republic of China in Kazakhstan, Commercial Office [中华人民共和国驻哈萨克斯坦大使馆经济商务处] (2018), Erubaeva (2018), Industrial and Commercial Bank of China (2020), IRBIS (2010), Kazakh Invest (2018), Kazakhstan (2020), KazMunaiGas (2018), Lain (2018), A. Lee (2019), NORINCO International (2017), NORINCO International [北方国际] (2017), Rapoza (2018), Shayakhmetova (2018), Smirnov (2011), UzDaily (2009), Xinhua Finance Agency (2018), and Zawya (2018a)

Several projects involve processing industrial raw materials, but there are substantial intra-sector differences. A pair of metal processing plants involving ENRC both received the familiar modality of tied loans from Exim. These fit the pattern established by loans to ENRC in the ore extraction sector in the previous section. A pair of cement plants and a fertilizer factory, on the other hand, did not involve higher-risk state-connected firms and were done with fewer risk management tools in hand. One was built for French investor Vicat in partnership with Kazakhstan's Kazkommerts and IFC. The same logic from the IFC-sponsored projects in Pakistan applies: the World Bank Group's participation implies a high degree of vetting and oversight which was able to draw in a consortium of private banks and reassure China National Building Materials that it would be paid for its services. Another cement plant is actually 70 percent owned by China's Gezhouba, which thus holds 70 percent of debt from ICBC and associated risk. A potash mine and attached fertilizer plant were debt-backed, but the actors involved imply greater confidence in their financial prospects. As a commercial bank, ICBC is mandated to have a lower risk tolerance than Exim did for its ENRC deals. Builder CITIC Construction is also associated with China's sovereign wealth fund and may have less latitude to lose money.

Projects in agriculture and finance tended to have more in common with this latter group. Sovereign wealth fund CITIC and import-export holding company China Cloud Copper have both invested in joint ventures with Kazakhstani interests in beef and feedstock, respectively. The agricultural sector has not often been stricken by the same kind of graft which afflicts many mineral commodities, and the Chinese investors may have seen this as lower-risk than the ENRC metals projects. CITIC has also bought a majority (50.1 percent) stake in the private Altyn Bank; China Tobacco, a state monopoly which sometimes functions as a *de facto* holding company, owns another 9.9 percent, with the remaining 40

percent belonging to local Halyk Bank. CITIC's chairwoman of the board told reporters that plans for the bank are to "serve more than 300 Chinese companies already working in the former Soviet republic and would also develop private banking services for wealthy citizens in Kazakhstan" (Auyezov, 2018). Given CITIC's own investments in Kazakhstan, there is a ready base of customers, as well as many unrelated projects which might need funding. Of course, there is also a diplomatic component here: the chairwoman emphasized to the press that "Kazakhstan is the first stop along the Belt and Road" (Auyezov, 2018).

In another deal with more market implications and less downside risk for the host country, the Shanghai Stock Exchange has taken a 25 percent stake in the new Astana International Exchange. The Silk Road Fund owns another 5 percent. This is not, however, a closed, purely Chinese venture: Goldman Sachs has also taken a 4.1 percent stake, and the relevant technology is being provided by NASDAQ (Seisembayeva, 2017). The nature of a stock exchange is that it is open to local participation; after all, large Chinese firms have ample access to their domestic markets.⁵⁷

7.2.2.6 Aid, Diplomacy, and Geostrategic Interests

A small amount of funds went to projects related to border security. China donated one million yuan (2002) and \$396,000 (2006) in equipment to the Kazakhstani border police (Dreher, Fuchs, Parks, et al., 2018). This confirms the theoretical expectation that border security concerns would encourage less demanding types of financing like grants. Then,

⁵⁷The future of China's contribution to the productive sector is somewhat up in the air. A list of fifty-five projects has been pledged since 2016, but as of January 2019, only four had been implemented. These projects often move slowly and it remains to be seen how many of them will happen, especially in light of a slowing economy. See Medeubaeva (2019) for the original list with notes in English and Bitabarova (2018) for analysis of how the projects have unfolded in practice.

in 2019, China funded upgrades to Kazakhstan's border checkpoints with both China and Uzbekistan using a two billion yuan (\$280 million)⁵⁸ Exim loan. While this was debt, it was not very demanding: an interest rate of two percent repaid over twenty years indicates the intent to aid Kazakhstan more than to make money (Levina, 2019).

The most striking thing about these projects is their scarcity, at least relative to Pakistan, where China at one point offered \$400 million in grants at once and has built networks of security cameras in multiple cities. Pakistan's much more serious terrorism problem is reflected both in the content of Chinese development finance and its terms: the types of very low-interest loans made for security-focused projects are not as often seen in Kazakhstan.

7.2.2.7 Conclusion: Kazakhstan

Two trends are readily on display in Kazakhstan. First, China's ability to use development finance to achieve its foreign policy goals increased significantly over time, especially relative to a shrinking Russian economic footprint and stagnant Western investment following the financial crisis. Second, the terms at which China began to assert itself were highly uneven based on sector and political risk. Projects like the transcontinental highway are undoubtedly in China's interests, but World Bank, ADB, and other funding abrogated the need for China to be involved beyond a few of its companies winning a handful of related construction contracts. Where China did get involved in internationally popular projects like oil production, it was on terms favorable to the Kazakhstani leadership. Debt was reserved for exceptionally high-risk items like those involving state-connected mining companies with checkered track records.

⁵⁸As of June 1, 2020.

7.3 Conclusion

This chapter has demonstrated the interactive relationship between geopolitical interest, political risk, and Chinese development finance terms. All else equal, H3A held that geographically interests would be correlated with laxer treatment, with H3B's caveat that this relationship can weaken or reverse as political risk increases. Both Pakistan and Kazakhstan are relatively high-risk, albeit with substantial variation across sectors, but the relative weight of geostrategic and commercial interests is not the same. Kazakhstan's lucrative mineral reserves and relatively affluent market make it a more natural partner for China's construction and energy firms. Pakistan has less to draw these firms, but threats to overland navigation and even to China's own internal security are much more real there. The exact terms of geostrategically important projects varied in response. In Kazakhstan, China was relatively hands-off: an important highway was funded by major multilateral development banks with only low levels of Chinese participation, and a railway was built by the private sector but subsidized by Chinese provinces. In Pakistan, major multilaterals and private investors were less forthcoming. The higher-risk portion of the Karakoram Highway was built using Exim loans, and the critically important Gwadar complex was built using a combination of loans and, after generous treatment of distressed debt, grants. Gwadar in particular shows the lengths that Chinese development financiers are able to go to when 1) a project is deemed to be in the national interest; and 2) others are not filling the need. Pakistan also received many more grants and highly concessional loans to refugee resettlement and law enforcement, whereas this was only a minor part of the story in Kazakhstan.

This chapter and the three before it have covered China's basic tools of development finance, ranging from grants and zero-interest loans for small aid projects to blockbuster billion-dollar commodity-secured deals. This leaves one last secondary issue: what to do

with more demanding loan deals when borrowers encounter trouble repaying. The next chapter establishes a secondary hierarchy of more and less concessional financing tools for the special case of distressed debt and finds relationships with the independent variables that broadly parallel those for the initial inflow of capital.

7.4 Appendix

China's involvement in Kazakhstanian infrastructure of types not covered above has been limited. Data regarding financing details is not often available. Because of the small universe of cases and incomplete data, it is difficult to do very much definitive analysis on them. They are listed in the table below.

Table 7.6: Other Chinese Projects in Kazakhstanian Infrastructure, 1997-Present

Name	Year	Sector	Chinese Firm	Value (mil. USD)	Lender	Loan Amount (mil. USD)	Ownership
Wireless networks	2004	Telecoms	ZTE	200			Kazakhstan (51%), ZTE (49%)
Khorgos Hydro	2005	Hydro					
Moinak Hydro	2006	Hydro		310	CDB, Development Bank of Kazakhstan	200, 50	KazKuat
Telecoms equipment	2007	Telecoms	Huawei		Exim	34	Kazakhstan Mobile Telecom
Cascade Hydro	2010	Hydro	Gezhoubu, Xinjiang International Economic Cooperation	728			Kazakhstan
Pavlodar Wind	2013	Wind	Envision Wind	100	CDB		

Continued on next page

Table 7.6: Other Chinese Projects in Kazakhstan Infrastructure, 1997-Present

Name	Year	Sector	Chinese Firm	Value (mil. USD)	Lender	Loan Amount (mil. USD)	Ownership
Caspian desalination	2017	Water	Shanghai Safbon	100	Chinese bank (unknown)		
Shelek	2017	Wind	Sinohydro, Goldwind	160	EBRD		Sinohydro, Samuk Energy
Zhanatas	2017	Wind	SPIC, Envision Wind	340	AIIB	46.7	Sinohydro

Sources: (American Enterprise Institute, [2019](#); BeltWay Group Limited, [2017](#); China Gezhouba Group, [2010](#); Dreher, Fuchs, Parks, et al., [2018](#); Fitch Solutions, [2019](#); Kazakhstan Stock Exchange, [2007](#); Nodar, [2010](#); O'Neill, [2014b](#); Péyrouse, [2007a,b](#); Power, [2019](#); PowerChina, [2019](#); REVE, [2013](#), [2019a,b](#); Y. Yu, [2019](#); Zhanatas Wind-Power Station, [2020](#))

Chapter 8

Distressed Debt

The previous four chapters covered how China goes about financing projects from the outset, but the story does not always end here. There is always some risk that borrowers will run into trouble repaying their debts, and this risk is elevated for large projects in developing countries. When borrowers fall behind on payments, China faces a second iteration of the tradeoff between being as understanding as possible and maintaining warm relations or being more demanding and securing its commercial interests. On one end of the spectrum is outright forgiveness of debt; this is akin to grants in China's initial decision tree. The second most concessional way of handling debt would be restructuring or rescheduling, meaning some combination of extending the payback period and/or breaking the debt up into smaller individual payments. Third are debt-equity swaps, meaning that China either forgives or assumes responsibility for debts in exchange for an equity stake. This is similar to equity investment itself, which was an intermediate option between more demanding debt and less demanding aid. Debt-equity swaps are not costless to the recipient, but they do reduce debt burdens and thus the immediate economic impact of a financial crisis. The

toughest of China's measures then, is to hold out and demand repayment in full, potentially subjecting the borrower to immediate economic pain.

I address the secondary decision regarding distressed debt using a structure similar to that with which previous chapters addressed the decision to issue development finance to begin with. Following a brief section on data and methods, I break down cases of debt renegotiation by the independent variables involved. These are, in the order presented: 1) general diplomatic interests;¹ 2) territorial disputes; 3) geostrategic interests; and 4) commercial interests.

8.1 Data and Methods

Of the outcomes of interest in this chapter, China's treatment of distressed debt is the most difficult to analyze quantitatively. Most loans are repaid without any ado. This means that the universe of cases is fairly small—Kratz, A. Feng, and Wright (2019) found only forty instances of renegotiation between January 2001 and April 2019. These renegotiations can result in a spectrum of outcomes ranging from forgiveness to demanding repayment in full, each of which constitutes an even smaller set of observations. Only two debt-equity swaps have taken place to date. The small sample size also adversely affects the ability to test some of the independent variables because of selection effects—countries bordering China, for example, have been disproportionately less likely to need debt relief than those in Africa or the Pacific, and countries at strategic chokepoints have also done well economically. Finally, the missing data problem is more acute for distressed debt, as

¹While this was second in the order of analysis for the other chapters, it comes first here because it is to some degree present in all cases but generally comes to the forefront in the absence of more pressing interests. So, I treat cases without any broader geostrategic or commercial significance as a type of “control” for those in which China has deeper interests.

both China and many borrower countries prefer to keep negotiations behind closed doors and avoid bad press. Kratz, A. Feng, and Wright (2019) caution that their data is likely missing several debt renegotiations for this reason, so we should take the results of this section with a larger grain of salt than for other sections of this chapter.

To deal with these issues, I use a more in-depth, qualitatively oriented analysis of combined data from Kratz, A. Feng, and Wright (2019), who list all known Chinese debt renegotiations between 2001 and their publication in April 2019, and Dreher, Fuchs, Parks, et al. (2018), whose data covers the years 2000-2014. The Kratz, A. Feng, and Wright (2019) data provides more detail as to what happened in each individual case, meaning that the sample set is divided between a series of outcomes (“write-offs,” “deferment,” “rescheduling,” “asset seizure,” etc.). It should be cautioned that the Dreher, Fuchs, Parks, et al. (2018) and Kratz, A. Feng, and Wright (2019) datasets cover substantively different sets of cases. Dreher, Fuchs, Parks, et al. (2018) include only forgiveness and rescheduling and rely more on press or official announcements. Kratz, A. Feng, and Wright (2019), on the other hand, looked for further verification and thus included many fewer items of forgiveness or rescheduling, but also expanded the sample to include stricter handling of debt renegotiation such as not restructuring debt at all. I include both sets of data, but readers should be aware of the differences.

8.2 Results and Analysis

The analysis in this section divides the sample by independent variables of interest. One section looks at cases in which the Taiwan and South China Sea disputes are involved; another, geostrategically important countries; another, on commercial interests with a par-

ticular focus on resource-backed loans in distress. General diplomatic motives are always present to a certain extent in China's calculations, but may or may not compete with other priorities depending on the country. So, I create a residual category of countries which are not coded as important for any of the other variables of interest in the expectation that general diplomatic interests will prevail here. This residual category also provides a baseline for expectations of Chinese behavior before other national interests enter the picture; e.g., the theory would predict diplomatic interests to lead to more debt forgiveness, but this could be counteracted where substantial commercial interests are present. So, I look first at 1) the basic, diplomacy-only cases (H2) before proceeding to territorial disputes (H1), geostrategic interests (H3) and finally commercial interests (H4). This is obviously distinct from the order of presentation in the hypotheses but makes sense in this instance.

8.2.1 General Diplomatic Interests

The theory would predict all else equal, diplomatic interests will lead to more forgiving treatment of distressed debt. The data on debt renegotiations absent other Chinese interests back this prediction.

Table 8.1 summarizes cases for which no interests other than diplomacy were identified in comparison with the rest of the sample set. The "Diplomacy Only" group is a residual category of the states remaining once we exclude those home to "Other Interests." Namely, the "Diplomacy Only" category excludes states which recognize Taiwan; are members of ASEAN; border China; are located at maritime chokepoints; are located along Belt and Road routes; or have received resource-backed loans. The differences between the two parts of the sample set are stark. The residual "diplomacy only" category skews lower-income than the countries with geostrategic importance, resource security implications, or

Table 8.1: Borrower Countries Which Have Renegotiated Chinese Debt

	Diplomacy Only	Other Interests
Low Income	44.4% (16)	25.9% (7)
Lower Middle	25.0% (9)	55.6% (15)
Upper Middle	27.8% (10)	18.5% (5)
High Income	2.8% (1)	0.0% (0)
Africa	69.4% (25)	44.4% (12)
Forgiveness	91.7% (33)	66.7% (18)
Deferment / Restructuring	13.9% (5)	44.4% (12)
Debt-Equity Swap	0.0% (0)	7.4% (2)
Moratorium	0.0% (0)	11.1% (3)
Ongoing negotiations	5.6% (2)	14.8% (4)
Total	100.0% (36)	100.0% (27)

Income classifications per World Bank as of 2018.

Columns may not add to 100% where countries received different types of distressed debt treatment in different instances.

importance for China's territorial disputes. It also is much more African. Home to fifty-four United Nations General Assembly votes and many sympathetic governments, Africa has played a disproportionate role in China's diplomatic outreach and is the region of the world with the greatest need for debt relief.

Based on these characteristics, the theory would predict that the "diplomacy only" countries will receive more favorable treatment, and this is indeed the case. Thirty-three of the thirty-six (91.7 percent) received at least some debt forgiveness; only five were asked to defer or reschedule loans, and none faced moratoriums on new lending or debt-equity swaps. Forgiveness was also the most common outcome where China had other interests, but occurred in "only" two-thirds of countries as opposed to over ninety percent. Instead, tougher loan repayment treatments become much more common when diplomacy is only one of multiple Chinese interests.

Of course, it was predicted that countries with significance for China's territorial disputes or with geostrategic importance would also receive more favorable treatment. Where commercial interests prevail, on the other hand, the theory predicts tougher treatment. The remaining subsections in this section address these theoretical predictions.

8.2.2 Territorial Disputes: Taiwan and the South China Sea

Because China loans less money to South China Sea disputants and almost none to countries which recognize Taiwan, there are relatively few instances in which we can test theoretical predictions for the relationship between debt renegotiation outcomes and territorial disputes, but the little empirical evidence that exists supports the theory. With respect to the Taiwan issue, countries which recognize Taiwan are only going to receive debt relief from mainland China if they received loans from China, which typically means they previ-

ously recognized Beijing. This has happened three times: in Nauru (2002), Senegal (2006), and Chad (2007). In 2002, Nauru briefly switched recognition from Beijing to Taipei, but reverted to recognizing Beijing after less than two weeks as a domestic political struggle resolved itself in mainland China's favor. During this period, there was a predictable uptick in both Taiwanese and mainland aid to the small island country. As part of a larger aid package, China agreed to write off \$77 million in Nauruan debt. This included not only loans owed to China, but much more unusually also included Chinese assumption of responsibility for Nauruan debt owed to General Electric (Chu, 2002; Dreher, Fuchs, Parks, et al., 2018). Less information is publicly available on the case of Senegal, which recognized Beijing from 1971 to 1999 and Taipei from 1999 to 2005. It is known, however, that China forgave roughly \$18.5M in Senegal's debt in 2006, immediately after Senegal switched recognition to Beijing (BBC News, 2005; Dreher, Fuchs, Parks, et al., 2018; Shinn and Eisenman, 2012). A similar story played out in Chad, which recognized the mainland from 1972 to 1997, Taiwan from 1997 to 2006, and the mainland again since 2006 following an \$80 million package including \$33 million in debt forgiveness (Dreher, Fuchs, Parks, et al., 2018). Repeated changes of allegiance between Beijing and Taipei are infrequent enough that our sample size is limited, but the three known cases do indicate a role for debt forgiveness as a concessional tool, often used alongside grants. The observed temporal pattern is also similar to that observed for grants: no cooperation at all while a country recognizes Taiwan, but extremely favorable treatment once they switch.²

The available evidence is more limited for the ASEAN issue. None of the rival South China Sea claimants have renegotiated any debt with China, at least partially due to a lack

²In all three of these cases, the "Taiwan" variable was coded as zero in the quantitative analysis due to the fact that the countries recognized China for part of the year in which the deal take place (Nauru) or all of it (Senegal and Chad).

of borrowing to begin with. Three non-disputant ASEAN members—Cambodia, Laos, and Myanmar—did receive debt write-offs.

Of the three, Cambodia's write-offs have the clearest connection to the South China Sea dispute. Cambodia has been China's most stalwart defender within ASEAN, in no small part due to Chinese economic generosity. China wrote off \$200 million in Cambodian debt as Cambodia was hosting the November 2002 ASEAN Summit at which ASEAN and China agreed to a Declaration on Conduct of Parties in the South China Sea (Association of Southeast Asian Nations and People's Republic of China, [2002](#); Dreher, Fuchs, Parks, et al., [2018](#)). The Declaration of Conduct was a non-binding document discouraging the use of force and encouraging peaceful dispute resolution, albeit without any concrete proposal for how this would be achieved. The dispute remained relatively contained until Chinese policy began to take a more assertive turn in the late 2000s. In March 2009, a group of Chinese ships surrounded the USNS Impeccable, an American naval surveillance ship, seventy-five miles from the Chinese coast and demanded that it leave the area. The location of the dispute was within China's vaguely defined claim to the South China Sea, but well outside China's maritime territory per international law and custom. The United States began to send armed escorts alongside future surveillance missions in the area, and at the July 2010 ASEAN Regional Forum in Hanoi, U.S. Secretary of State Hillary Clinton for the first time publicly referred to freedom of navigation and peaceful dispute resolution in the Sea as an American "national interest" (Clinton, [2010](#); Douglas, [2017](#)). The dispute was clearly heating up, and few were taking China's side. In November 2010, China wrote off another \$200 million in Cambodian debt. In July 2016, the Permanent Court of Arbitration ruled against many of China's maritime claims in a lawsuit brought by the Philippines. Several days later, China announced \$600 million in new grants to Cambodia (Sok Khemara, [2016](#)).

(For reference, China provided \$1.04 billion to all countries in the sample set *combined* in 2014).³ Cambodia kept any mention of the court ruling out of that year's ASEAN joint statements. In October 2016, Cambodia was rewarded for its trouble with \$59 million in new loans, \$178 million in grants, and the a \$90 million debt write-off. China wrote off more debt to Cambodia than it issued in new loans, and this even before the grants (Wingo, 2019b).

Debt write-offs for Laos and Myanmar, on the other hand, are less clearly connected to the South China Sea dispute. While Laos has in recent years leaned toward the Chinese position, the \$45 million write-off mentioned by Dreher, Fuchs, Parks, et al. (2018) occurred in 2006, when Laos was relatively neutral. Myanmar received write-offs of \$72 million in 2002 and \$30 million in 2006, but until 2016 took care to avoid public mention of the dispute, and when it broke its silence expressed more sympathy for the Philippine position. Other issue areas were more important to the Laos and Myanmar cases. Unlike Cambodia, both Laos and Myanmar share borders with China. Transnational crime is a problem in the region, and the border regions of northern Myanmar have been plagued by insurgencies. Both are also home to important overland transportation projects. A major railway connecting Laos to China's landlocked Yunnan province is currently under construction and may eventually connect to ports in Thailand, thus bypassing the contested waters of the South China Sea (Wingo, 2019a). The Laos railway was in 2006 still only a hypothetical future prospect, but overland transportation projects in Myanmar were already more active (Oraboune, 2008). Myanmar possesses natural gas deposits off its coast in the Bay of Bengal, and talks regarding a gas pipeline were made public in 2004. An oil pipeline was later added, and both are now operational. Road upgrades and a new railway are still under

³The most recent year available from Dreher, Fuchs, Parks, et al. (2018).

consideration. These overland projects do not connect to so lucrative a market as Thailand, but they are probably better for strategic purposes: unlike the Lao-Thai route, they bypass the Strait of Malacca completely (Lintner, 2019; Nan Lwin, 2019; Storey, 2006).

Overall, we find evidence that China has used debt forgiveness to reward countries which move embassies from Taipei to Beijing or which back its stance on the South China Sea. Evidence for the South China Sea dispute is limited to non-disputants but supportive of the theory.⁴ In Laos and Myanmar, geostrategic interests also played much more of a role than the South China Sea dispute.

8.2.3 Geostrategic Interests

This leads us to the prediction that geostrategic interests will lead to laxer treatment of distressed debt. The Lao and Myanmar write-offs support this prediction, but they are not isolated incidents. Testing the other cases is complicated by the fact that some geostrategic factors tend to overlap one another. Namely, countries in the parts of Belt and Road corridors bordering China experienced more debt distress than those further away, meaning that there is a high degree of collinearity between border security and transportation corridor interests. The weight of border security *vis-à-vis* overland transportation concerns varies by country, so it is best to disentangle the two factors on a case-by-case basis. Table 8.2 lists all known cases of debt renegotiation in countries that border China, lie along Belt and Road corridors, or have coastlines along maritime chokepoints. I also include one case, Vanuatu, which is not coded as geostrategically important per these three criteria but has

⁴Disputant country Malaysia has bargained down the price of a multi-billion dollar debt-backed rail project, but Kratz, A. Feng, and Wright (2019) code this as a project renegotiation before construction is complete rather than a repayment negotiation after the fact. In any event, the price markdown was the result of Malaysian domestic politics: a new administration threatened to cancel construction due to concerns over cost and corruption and revived it only with a reduced price tag. This was clearly not part of Beijing's original plan.

security ramifications to be explained in this section.

Table 8.2: Known Debt Renegotiations with Geostrategically Important Countries, January 2000 - April 2019

<i>Country</i>	<i>Forgiveness</i>	<i>Deferment / Restructuring</i>	<i>Debt-Equity Swap</i>	<i>Ongoing negotiations?</i>
Afghanistan	>1M (2002; AidData) 18M (2004; AidData)			
Bangladesh	103M (2011; AidData) 200M (2002; AidData)			
Cambodia	200M (2010; AidData) 90M (2016; Rhodium)			
Djibouti				✓ (Rhodium)
Eritrea	3M (2003; AidData)			
Kazakhstan		<1.9B (2018; Rhodium)		
Kyrgyzstan	7M (2008; AidData)	250K (2003; AidData)		
Laos	45M (2006; AidData)			
Mongolia		903K (2002; AidData) 2.2B (2017; Rhodium)		
Myanmar	72M (2002; AidData) 30M (2006; AidData)			
Sri Lanka		307M (2012; Rhodium) 1B (2019; Rhodium)	1.1B (2017; Rhodium)	
Sudan	40M (2001; AidData) 70M (2007; AidData) 1.4M (2007; AidData) 5.9M (2010; AidData) 160M (2017; Rhodium)	N/A (2012; AidData) N/A (2014; AidData)		
Tajikistan			>100M (2011; Rhodium)	
Vanuatu	5M (2000; AidData) 5M (2017; Rhodium)	N/A (2003; AidData)		
Yemen	84M (2002; AidData)			

In current USD. "AidData" figures from Dreher, Fuchs, Parks, et al. (2018); "Rhodium" figures from Kratz, A. Feng, and Wright (2019).

Overall, there are many more instances of write-offs than rescheduling, and only one debt-equity swap. I discuss these outcomes in turn for all countries listed in Table 8.2 except Sudan, whose debt renegotiations involved oil-backed loans and will be discussed alongside other resource-backed loans in the “Commercial Interests” subsection.

The write-offs often reflect particular geostrategic interests. Afghanistan is one of the most obvious examples. China worries about linkages between Afghan militants and Uyghur separatists in Xinjiang across the short Sino-Afghan border. After the toppling of the Taliban regime by the 2001 American invasion, China had a clear interest in a strong, stable Afghan government. Canceling Afghanistan’s debts could ease the financial burden on the new government while building healthy bilateral ties (Eisenman, Heginbotham, and Mitchell, 2007). Border stability was also a factor in the aforementioned Myanmar case, and to a lesser extent with respect to managing transnational crime issues along the Lao border. Countries at maritime chokepoints have also received favorable treatment. Few of these countries have needed to renegotiate their debts, but Eritrea and Yemen did receive write-offs. Worth watching is the case of Djibouti, which is currently seeking relief for debts surrounding a railway, port, and industrial complex abutting China’s only overseas naval base to date overlooking the Bab-al-Mandeb. Vanuatu is not at a maritime chokepoint, but its location to the east of Australia could provide a window on shipping traffic to and from a U.S. ally. China’s 2017 write-off of \$5M in Vanuatu’s debt came shortly before press reports of negotiations for a potential Chinese naval installation there (Wroe, 2018). Subsequent reports have raised the possibility that the island nation could host a facility for the Chinese space program, many of whose rockets splash down in the Pacific (M. Chan, 2018). Whichever (if either) of these plans actually materializes, debt forgiveness could play a role in its implementation.

That being said, China did not offer the most generous possible terms to some geostrategic partners in distress. This tended to happen for very large deals: the only items over \$1 billion were all either restructured (Kazakhstan and Mongolia) or converted into equity (Sri Lanka). Losses of this magnitude may be simply too much to stomach. This reflects the prediction of Hypothesis 4 that commercial interests will lead to stricter terms.

However, there were also other factors at work. In Kazakhstan, a planned urban railway project has stalled for a variety of reasons. The bank which housed funds received from China Development Bank ceased operations in the midst of a nationwide financial panic spurred by falling oil prices. It has since emerged that many of the funds were not actually spent on the railway, and the new Kazakh leadership is mounting an investigation for corruption. China Development Bank has withdrawn from the project rather than risk further losses (Gizitdinov, 2019; Vaal, 2019). Given this course of events, it is not totally clear that continuing to back the project would have been a positive for China's relations with a large bordering country, and the commercial downside to doing so became extraordinarily clear. The commercial need for stricter terms won out over the political demand for laxer.

The Kyrgyzstani and Mongolian cases were much less dramatic. China restructured \$250,000 in overdue debt as part of a 2002 multilateral agreement between Kyrgyzstan and the Paris Club, an organization of mostly developed-world creditors. The amount was very small and part of a deal designed more by other creditors than by China. In 2008, however, China wrote off approximately \$7 million in remaining Kyrgyzstani debt. This write-off came after trilateral talks between Kyrgyzstan, China, and India (Dreher, Fuchs, Parks, et al., 2018; World Bank, 2003). In a smaller grouping, China presumably had more room to maneuver talks to its liking, and as a result has written off much more Kyrgyzstani debt than it has restructured. This is in keeping with China's desire to manage bilateral relations

and economic stability in a bordering Central Asian country.

Mongolia's debt to China has been restructured twice. In 2002, China postponed repayment of \$903,000 in overdue debt by another ten years. Although not outright forgiveness, a ten-year delay is very generous, especially given that the earliest of the loans in question dated back to 1958 (Dreher, Fuchs, Parks, et al., 2018). In any event, loans totaling less than \$1 million are unlikely to have a significant effect on bilateral relations. A much bigger issue came with Mongolia's financial crisis in the mid-2010s, during which it drew on a bilateral currency swap agreement with the People's Bank of China, the Chinese central bank, to bolster its foreign exchange reserves. Like China's other swap agreements, the Sino-Mongolian arrangement was renewable every three years by mutual consent but was set to expire in early 2017. Mongolia might have struggled to repay the money, and Beijing opted to renew the agreement for another three years. Central banks are not known for formally writing off debt, but the extension of the agreement did buy Mongolia enough time to repay the funds, which had to have been appreciated in Ulaanbaatar. This lifeline did not come free of charge. McDowell (2019) writes that:

[...] prior to receiving the new BSA commitment from China, the Mongolian Foreign Minister spoke to his Chinese counterpart by phone; in that conversation he expressed regret that the Dalai Lama had been allowed to visit Mongolia the previous year, affirmed that 'Tibet is part of China', and noted his appreciation for China's financial assistance (Zhang, 2017). While Mongolia's capitulation to China may be unrelated to Beijing's financial assistance, the timing of this suggests otherwise.

China's exact configuration of interests in the Mongolian case explains this outcome. Seeking diplomatic support on Tibet's status is a constant across all of China's bilateral relationships, but it is particularly salient in Mongolia, a majority-Buddhist country with centuries-old ties to Tibetan Buddhism and a much more recent history of hosting visits by the Dalai

Lama. The preservation of financial stability was enough of a carrot for the Mongolian leadership to break with this tradition (E. Wong, 2016). Mongolia's location along China's border and the Belt and Road's northernmost corridor could also play a role. However, China's neighbor to the north presents drastically fewer security concerns than many to the west and south. Maintaining macroeconomic stability in an important Belt and Road component country would be a more logical motivator, although this was obviously never stated in public and had to be weighed against the desire to recoup the hundreds of millions which Mongolia reportedly still owed.

China's hand was forced into taking a tougher stance on the Kazakhstani project, and the Kyrgyzstani agreement was not particularly tough on the borrower. Mongolia's debt extension did come with strings attached, but in a way consistent with the theoretical prediction that financial generosity can buy diplomatic loyalty. This leaves two last example of an outcome other than forgiveness: debt-equity swaps. These have only taken place twice to date, in Tajikistan (2011) and Sri Lanka (2017). Debt-equity swaps are an intermediate option between laxer terms (e.g., forgiveness) and tougher ones (not writing off the debt at all), and in both cases, these swaps were a compromise between different sets of Chinese interests pushing for tougher or laxer treatment.

China and Tajikistan had a territorial dispute dating back to Qing and Russian imperial expansion and inherited by the People's Republic of China and the Soviet Union, but the end of the Cold War presented an opportunity to put it to rest. In 2011, the Tajikistani parliament ratified an agreement settling the dispute under which China would receive 1,000 square kilometers of disputed land—not a trivial sum, but only 5.5% of the disputed total. In exchange, China wrote off an undisclosed amount of Tajikistani debt reported to be in the hundreds of millions. Tajikistan received over 90% of the land it claimed and received

a financial bonus to boot, but China did gain something out of the deal. The portion of the claim which went to China abuts the Wakhan Corridor, the narrow Afghan-controlled mountain pass which separates Tajikistan to the north from Pakistan to the south. The particular strip of land concerned allows China to better police traffic between its territory and Afghanistan. Furthermore, a Chinese firm has since invested in gold mining in the ceded territory, and there are may be small uranium deposits there as well (BBC News, 2011; Eurasianet, 2018; Reynolds, 2018). Perhaps most importantly, Chinese troops are now stationed on the Tajik side of the border and reportedly into the Afghan portion of the Wakhan Corridor. These troops are well-positioned to manage transit between Afghanistan and China (International Crisis Group, 2018b; G. Shih, 2019). The *Washington Post*'s map (Figure 8.1) highlighting the troops' location illustrates the point.

The Tajikistani debt-equity swap came about as the result of a tug-of-war between competing Chinese interests. On one hand, China faced an obvious incentive to boost bilateral relations to improve its own security situation. On the other, possession of a small portion of the disputed land could do even more for its security, and commodity interests also called for a tougher take on the land dispute. The small part of land that China ultimately received was surgically targeted at serving these interests while otherwise being as accommodating as possible to the Tajikistani parliament, which had understandable jitters about negotiating an issue of national sovereignty with a much stronger neighbor.⁵ Negotiating military access to the Tajik-Afghan border is arguably better for China's border security than claiming the full disputed land area ever was, and Beijing's strategy appears to have

⁵While border security usually leads to laxer terms, the actual bargaining away of land itself can lead to the opposite dynamic. This is an uncommon situation for China, although not an unheard of one: China's settlement of its border dispute with Pakistan allowed China to keep one strategically important mountain pass while granting enough to Pakistan to settle the dispute and remove an obstacle to cooperation to counter India.

Figure 8.1: Map: the Wakhan Corridor



Source: G. Shih (2019).

paid off.⁶

The notorious Sri Lankan case followed a similar pattern. Sri Lanka, which sits at the middle of the critically important shipping lane connecting the Persian Gulf and Europe to the west to China to the east, has long been the subject of rumors regarding a future Chinese military base. As a bloody civil war wound down in the 2000s, Sri Lanka's government was

⁶Granted, an ample historical track record suggests that stationing troops in Central Asia could backfire on China by turning it into a target of extremism. This does not appear to have been Beijing's calculation, however.

internationally isolated and in need of reconstruction funds both from the war and from the 2004 Indian Ocean tsunami. China was one of the few parties willing to overlook its human rights record and market risk and began to bet big on the island. China's involvement extend to a range of different projects, but of particular note where a pair of ports. China Merchants Port Holdings Company, a part of the major China Merchants conglomerate group, took a majority equity stake in a new terminal at the port at Colombo, the largest city, with the backing of a \$300 million loan from the Japanese-led multilateral Asian Development Bank. China Harbour Engineering Company ("China Harbour"), a subsidiary of the behemoth China Communications Construction Company, took over \$1 billion in loans from China Exim to build a second port in the town of Hambantota, on the island's tsunami-ravaged southern coast. Home to only 40,000 people, Hambantota was not an obvious site for a major investment of any kind. A 2002 feasibility study had labeled the project non-competitive with the existing Colombo port, but Hambantota just so happened to be the hometown of then-President Mahinda Rajapaksa. American, Indian, and Japanese investors reportedly turned down the chance to participate, but China Exim moved in to the void, backing not just the port but also a nearby airport and cricket stadium. Once built, the port and airport (predictably) could not draw traffic away from Colombo and quickly ran into trouble servicing debt payments (Wingo, [2020a](#)).

By 2014, it had become clear that a course correction was necessary. In September of that year, Chinese President Xi Jinping visited Sri Lanka and promised \$391 million in new equity investments in the Hambantota Port by both China Merchants and China Harbour. This was not a debt-equity swap—the old debt was still on the books—but China realized that Sri Lanka could not afford to borrow more. The entry of China Merchants, the backer of the Colombo expansion, was also telling: China Merchants was capitalizing on

China Harbour's loss-making misstep to gain market share on the island. A much larger blow to the project, however, came with the January 2015 election of Maithripala Sirisena to the Sri Lankan presidency. The new administration secured assistance from the IMF, which wanted the government to cut loss-makers. Having run on an anti-corruption platform, Sirisena saw his predecessor's loss-making patronage project at Hambantota as an easy target. The new Sri Lankan government approached the Chinese Embassy with a proposal: erasure of all project-level debts in exchange for Chinese ownership of the port and airport. China refused; the Chinese Ambassador told the press that such a deal "was not possible according to China's laws" (Sunday Times, [2016](#)). Ambassador Yi did not specify which of "China's laws" he meant, but any objections were almost certainly to the losses to Exim and not to the gains to Chinese firms. By October 2016, the parties had found a way around this issue. The Hambantota port was to be placed under the custody of a joint venture in which a Chinese investor would take a majority stake. In exchange, the Chinese investor would assume the port's remaining debts, meaning that Exim would have claims on the port's future profits (were they to materialize). Sri Lanka was given a choice between China Merchants and China Harbour as the investor and ultimately sided with China Merchants, which had earned itself a good name with the Colombo port expansion (Wingo, [2020a](#)).

This deal allowed the Sri Lankan government to remove a financial albatross from its shoulders and improve repayment capacity through new investments; China Merchants to edge its competitor out of Sri Lanka; and China Exim to reduce its losses. Notably absent in this deal is the Chinese security establishment, which have may have maintained its previously existing refueling station and gained in the intelligence and sanctions-busting arenas but lost the larger prospect of permanent naval deployments to Hambantota. The handover deal

“bars foreign countries from using the port for military purposes unless granted permission by the government in Colombo” (Abi-Habib, 2018). A warship is an extraordinarily difficult thing to hide, and Sri Lanka maintains the ability to refuse naval port calls if it so chooses. That being said, the company tasked with providing security for the port is 53.4 percent owned by a subsidiary of China Merchants—49.3 percent as part of a publicly disclosed partnership with the Sri Lanka Ports Authority (SLPA), and another 4.1 percent via a less-publicized equity stake in the SLPA itself (Thorne and Spevack, 2017).⁷ The people tasked with preventing, say, contraband bound for Iran or surveillance equipment from entering the port answer to a major Chinese conglomerate.

While much has been made of China’s “debt trap” as a precursor to a Sri Lankan military base, the actual course of events has made it clear that no Chinese warships will be refueling at Hambantota (or anywhere else) without local permission. Equity ownership of a port may make it easier to conduct intelligence-gathering activities, but not actual naval resupply. From a geostrategic standpoint, it is in China’s interests to be as friendly to Sri Lanka as possible so as to maximize the odds of naval access. This was the idea behind Xi’s announced equity investments, which might have (if successful) helped Sri Lanka repay its debts in the long term while China overlooked missed payments in the near term. The election of a new president interrupted this plan, however, and China Exim flexed its considerable muscle within the Chinese system to prevent a total loss of its \$1.1 billion. The debt-equity swap kept Exim’s hopes of repayment at least partially alive by transferring liabilities to the new Chinese owners, and granted the security establishment intelligence access, if not the more substantive militarized presence it might have liked. In a compromise between geostrategic and commercial interests, neither side got all of what they

⁷The author is thankful to Zach Haver for this point.

wanted.

China will generally be more understanding toward distressed debt owed by important geostrategic partners which it would not wish to alienate. In some instances, however, this imperative must be weighed against commercial interests or against a desire for access to individual geostrategically important projects. These findings are most immediately relevant for the minority of countries in which China has any appreciable geostrategic interest. In most states, however, economic considerations will far outweigh geopolitical ones, although general diplomatic goals will still weigh against businesses' desire to minimize risk and maximize profits. I now turn to cases in which commercial interests, namely resource security, come first.

8.2.4 Commercial Interests

In all debt renegotiations, banks will have an interest in minimizing losses. As established in the previous section, they tend to get their way more often when large amounts of money are on the table. In this section, I extend this logic to renegotiations of resource-backed loans. It remains true that the banks will be more willing to hold their noses and take smaller losses than larger ones, but the issue is here made more urgent by the fact that repayment of these loans can affect China's resource security. In this section, I analyze renegotiation of debt in countries that have received resource-backed loans. The most obvious observable implication of the theory would be that China will be less likely to write off resource-backed loans and more likely to find a way to maximize repayment, but there is a second implication that is more easily observable qualitatively than quantitatively. Many countries which receive resource-backed loans may also receive more traditional cash-based loans or equity investment. In these cases, it makes sense for China to be more forgiving with

respect to repayment of cash loans so that the recipients can reallocate fiscal resources to commodity production. The two sets of commercial interests involved in resource-backed loans—construction exports and commodity imports—will demand stricter terms than the more limited interests involved in cash loans.

Table 8.3 lists recipients of resource-backed loans who have also renegotiated Chinese debt.⁸

⁸I exclude the case of Niger, which received a \$25 million write-off in 2001, twelve years before its 2013 \$1 billion oil-backed loan.

Table 8.3: Known Debt Renegotiations with Countries Which Have Received Resource-Backed Loans, January 2000 - April 2019

<i>Country</i>	<i>Forgiveness</i>	<i>Deferment / Restructuring</i>	<i>Moratorium</i>	<i>Ongoing negotiations?</i>
Angola	8M (2001; AidData) 6.6M (2007; AidData)	21.3B (2015; Rhodium)		✓ (Rhodium)
DRC				✓ (Rhodium)
Ecuador		1B (2018; Rhodium)		
Equatorial Guinea	N/A (2001; AidData) N/A (2005; AidData) 75M (2006; AidData)			
Ethiopia	123M (2001; AidData) 18.5M (2007; AidData)	2.2B (2018; Rhodium)		✓ (Rhodium)
Ghana	54M (2002; AidData and Rhodium) 66M (2003; AidData) 126M (2007; AidData and Rhodium)		1.5B (2014; Rhodium)	
Kazakhstan		<1.9B (2018; Rhodium)		
Nigeria	2.5M (2003; AidData)			

Continued on next page

Table 8.3: Known Debt Renegotiations with Countries Which Have Received Resource-Backed Loans, January 2000 - April 2019

<i>Country</i>	<i>Forgiveness</i>	<i>Deferment / Restructuring</i>	<i>Moratorium</i>	<i>Ongoing negotiations?</i>
Republic of the Congo	75M (2001; AidData)			
Sudan	40M (2001; AidData) 70M (2007; AidData) 1.4M (2007; AidData) 5.9M (2010; AidData) 160M (2017; Rhodium)	N/A (2012; AidData) N/A (2014; AidData)		
Ukraine		3B (2014; AidData and Rhodium)		
Venezuela		N/A (2014; AidData) N/A (2016; Rhodium) N/A (2018; Rhodium)	N/A (2015; Rhodium)	
Zimbabwe	40M (2015; Rhodium)	42M (2003; AidData) 18M (2003; AidData) 55M (2007; AidData) 54M (2010; Rhodium)	N/A (2014; Rhodium)	

In current USD. “AidData” figures from Dreher, Fuchs, Parks, et al. (2018); “Rhodium” figures from Kraatz, A. Feng, and Wright (2019).

Table 8.3 contains a higher proportion of rescheduling and lower proportion of forgiveness than was observed for countries receiving conventional cash loans. While no resource-backed loans ended in debt-equity swaps—per the theory’s prediction, this option is typically reserved for geostrategically important assets—several did end in moratoriums on future credit pending repayment of older loans. This can be a fairly harsh option and absent some rescheduling or refinancing of the troubled assets does not appreciably improve the borrower’s finances.

However, some countries in Table 8.3 did receive favorable treatment. This can be explained by sorting debt renegotiations in countries which have received resource-backed loans into two camps. First are renegotiations of older cash-based loans in countries which also either owe or are considering borrowing resource-backed debt. China has written off debt in some of these instances, especially where erasing cash debt makes repayment in commodities easier. Second are negotiations surrounding resource-backed debt proper. In only one case do these appear to have ended in a write-off; in general, China is very tough about defending its commodity security interests. I discuss the first group before the second.

In four cases, renegotiation of preexisting cash-based debt came around the time of major resource-backed loan packages. In three—the Republic of the Congo, Nigeria, and Ethiopia—renegotiations resulted in forgiveness. The Republic of the Congo received \$75M in debt relief in 2001 before a \$238M oil-backed loan for a hydroelectric dam which began construction in 2004. Nigeria received a \$2.3M write-off in 2003, around the time that a pair of power plants backed by \$206.3M in loans-for-oil were announced (2002) and began construction (2005). Finally, in 2007, China wrote off \$18.5M in Ethiopian debt; this came the year after a \$500M loan collateralized with proceeds from Ethiopian exports

to China, most of which at the time came from sesame seeds.⁹ The theory presents two possible causal mechanisms behind these cases. First, China's desire to maximize its resource security will lead it be tougher on commodity-backed loans than elsewhere. This causal mechanism fits the Congolese case better: China functionally commuted \$75M in conventional cash-based debt into oil-backed debt. In Ethiopia and Nigeria, however, debt forgiveness of a small percentage of the value of the loans would not much matter for the borrower's capacity to repay. Here, a second causal mechanism makes more sense: simple bilateral relations management, possibly to counteract the demands put on the borrowers by resource collateralization.

The fourth of these cases was Zimbabwe, where China has rescheduled more debt than it has written off. Between 2004 and 2011, China extended at least \$1.17B¹⁰ in loans backed by Zimbabwean tobacco, platinum, and diamonds. The 2000s were boom years for many African economies, but not for Zimbabwe, which was stricken by mismanagement, recession, and eventually hyperinflation. China's early industrial projects in Zimbabwe began to run into trouble as China was still entering some African markets, and many Chinese commercial actors' patience quickly wore thin. In 2003, a pair of loans were restructured. A floundering Zimbabwean state-linked steel firm had fallen into default on a \$42 million debt to China Exim, which agreed to reduce the firm's monthly payments. Another Exim loan for \$18 million to a cement venture was also rescheduled and handed off to the Industrial Development Corporation of South Africa. Exim kept the steel company loan on its books but was forced to reschedule again in 2010, as the firm was still in default. It is possible that the 2003 reschedulings were meant to open fiscal space for forthcom-

⁹Dreher, Fuchs, Parks, et al. (2018); email correspondence with China-Africa specialist, June 2019.

¹⁰Dreher, Fuchs, Parks, et al. (2018) list an additional platinum-backed loan that would bring the total to \$1.66B, but Atkins et al. (2017) do not. I include this item in the "high" resource-backed loan scenario but not the "low."

ing tobacco- and platinum-backed infrastructure projects, but the available facts make this seem less likely than in the Republic of the Congo, for example. While platinum does have industrial applications, neither it nor (especially) tobacco are as central to Chinese resource security as are many other commodities. So, while there was ample incentive to write off Congolese debts to boost oil production or Ethiopian debts to increase Chinese food security, there was less such incentive in Zimbabwe. If anything, Zimbabwe's debt woes illustrate the risk-management function of resource-backed loans—Chinese lenders began to demand resource collateralization after having been burned on earlier projects.¹¹ Even in 2015, after the worst of Zimbabwe's crisis had subsided, China wrote off \$40 million in debts coming due only in exchange for Zimbabwe's promise to use Chinese renminbi as legal tender. During the period of hyperinflation, Zimbabwe had taken to using international currencies instead of its own, but mostly limited itself to readily convertible currencies such as the U.S. dollar and South African rand instead of the non-convertible renminbi. Zimbabwean use of the renminbi not only supported China's gradual push for currency internationalization but also meant that Chinese creditors could be repaid in their own currency rather than relying on Zimbabwe's woefully shallow foreign currency markets. China sacrificed a small amount of the credit owed it in order to save the rest (Agence France-Presse, 2015; Dzirutwe, 2015).

In the Republic of the Congo, debt forgiveness opened space for resource-backed loans; in Zimbabwe, where China had less pressing commodity interests, resource-backed loans were used to enter a market already struggling with (unforgiven) debt. In these cases, the debts being renegotiated were not themselves resource-backed, but this has not been true in all cases. I now turn to distressed resource-backed loans. In all but two such cases, China

¹¹As Bräutigam (2009) said of China's post-crisis deals in Zimbabwe, "these were not terribly friendly agreements" (288-89).

has opted for a tougher approach to loan repayment. This came via some combination of two strategies: 1) deferring repayment of the resource-backed loans so as to gain the same amount of access to commodities stretched over a longer timeframe; or 2) easing the borrower's financial strain elsewhere so as to maximize repayment capacity of the more important resource-backed loans. I begin with the more typical cases of Ukraine, Ecuador, Angola, and Venezuela, where China has declined to write off any resource-backed loans. I then move on to Ghana and Sudan, which present exceptions to this trend.

In 2012, China agreed to loan \$3B to Ukrainian agricultural investments in exchange for future wheat shipments. Since the 2008 global food price spike, the Chinese leadership had been nervous about its domestic agricultural situation and looked abroad for insurance against another such event. The Ukraine was one partner in this effort, but the loan deal was not to last for long. Viktor Yanukovich's government, which had negotiated the deal, fell from power in 2014, and his successors were lukewarm about the loan deal. Not long after, Russia's invasion had a serious effect on state finances. Recognizing the gravity of the situation, China agreed to defer repayment. Ukraine's State Food-Grain Corporation has still struggled with its debt burden—the company's Chairman of the Board told reporters that in 2016, profits could only cover 47% of payments due—and China has since sought international arbitration to recoup its losses (Interfax-Ukraine, [2017](#); Kratz, A. Feng, and Wright, [2019](#); Yan, [2017](#)). Even with the difficulties of Ukraine's situation, China still hopes to maximize benefits to its food security.

If Ukraine is a case of the first strategy (deferment of resource-backed loans), Ecuador is more of a case of the second (refinancing loans other than those backed by resources). The left-leaning government of Ecuadorean President Rafael Correa relied heavily on Chinese oil-backed loans to fund an infrastructure push, but the strategy's limitations became ap-

parent as oil prices slid during the 2010s. Ecuador for years managed to make payments, but with minimal room for error: at one point, deals with China claimed over 90% of Ecuador's crude output (Schneyer and Medina Mora Pérez, 2013b). As Correa left office in 2017, however, the situation was becoming increasingly untenable, and his successor, Lenín Moreno, sought to renegotiate Ecuador's debts. At the time, it was unclear what leverage Moreno really had—after all, almost all of Ecuador's oil deposits had already been mortgaged, and further oil-backed loans were not a realistic option.¹² Nonetheless, during President Moreno's December 2018 visit to Beijing, China and Ecuador managed to reach an understanding. Ecuador borrowed another \$969.3 million in conventional cash loans, \$69.3 million of which were given at a highly favorable 2 percent interest earmarked for reconstruction following a major earthquake. The remaining \$900 million were lent at 6.5 percent interest due in six years—not concessional by any conventional measurement, but still better than Ecuador's two sovereign bond issues in that year at 7.875 percent interest (ten years) and 10.5 percent (three years). Another \$30 million in grants was designated for the defense budget (Cbonds, 2019; Pipoli, 2018). The \$900 million was not designated for any specific area, although Xinhua's official Chinese coverage stated that “Xi expects the two sides to jointly promote cooperation in areas such as infrastructure, production capacity, agriculture, information technology, new energy and environmental protection” (Mu, 2018). In other words, the funding was either highly concessional and directed to areas of specific need (earthquake reconstruction), or at least cheaper than international bond markets and capable of filling budgetary shortfalls as needed during the worst of Ecuador's debt crunch. This would put Ecuador in a better position to commit resources to crude production and service the oil-backed loans.

¹²Conversation with China-Latin America specialist, Washington, DC, July 2018.

In Angola and Venezuela, China opted for a mix of the deferment strategy used in Ukraine and the refinancing strategy deployed in Ecuador. Both countries were hit by the oil price slump of the 2010s, although Venezuela much more so.

I start with the Angolan case. In 2014, as Angola's debt position was growing shakier amid low oil prices, China extended \$2 billion in additional credit to bolster Angolan energy production toward loan-for-oil repayment (Meidan, 2016, p. 5). This staved off crisis for a short time, but the more mundane (if significant) impact of falling oil prices was soon compounded by corruption. In October 2015, it emerged that the Central Commission for Discipline Inspection was investigating former Sinopec chairman Su Shulin and local fixer Sam Pa for inflating the price at which Sinopec bought five Angolan oil production blocks (N. Yu, Huang, and Yanwen Yang, 2015). (Su was later convicted.) Cost inflation in these equity investments had generated losses for Angola's national oil company, Sonangol, leading to further difficulties in repaying loans-for-oil. The 2014 \$2 billion package was not going to be enough, so in December 2015, the China Development Bank forwarded another \$5 billion to Sonangol and renegotiated oil purchasing terms in Angola's favor. Chinese refining giant Sinochem also agreed to buy additional crude from Angola (Meidan, 2016, pp. 5–6). The 2015 renegotiation certainly made a difference, but by 2018, Angola was still in some degree of distress, and China added another \$2 billion in credit, some of which was designated toward repayment of older creditors (Vines, 2018). As of 2017, Angola supplied 12.5 percent of China's crude imports, a share exceeded only by Russia and Saudi Arabia (United Nations, 2018). China, ever preoccupied with resource security, has been loath to write off any commodity-backed loans, not to mention ones with such immediate, short-term ramifications. However, a succession large cash infusions toward repayment of loans combined with restructuring of the original oil repayment agreements

were enough to allow Angola to repay the full value of the oil debt, albeit at a slower pace than originally planned.

Venezuela has received more attention than probably any other case of Chinese loans-for-oil, and for good reason. China has disbursed at least \$43.2 billion¹³ in resource-backed loans to oil-rich Venezuela, more than to any other country. The Venezuelan government used the windfalls from the high oil prices of the 2000s to fund major social programs, and much was lost to corruption as well (Kaplan, 2016). Having already spent most of this windfall wealth, however, the oil price crash of the 2010s hit Venezuela particularly hard, none the less because Venezuela's heavy, tar-like crude is scarcely profitable to refine at low oil prices. Venezuela's oil industry has struggled to maintain enough money in the bank to maintain production, to disastrous effect. Per capita economic output shrank by roughly half between 2014 and 2018.¹⁴ The United Nations High Commissioner for Refugees estimates that 4 million of Venezuela's 31 million citizens had fled as of June 2019.¹⁵ Venezuela represents a particularly dramatic test of the theoretical prediction that resource motives will lead to stricter Chinese treatment of distressed debt. On one hand, there is a more pressing case for debt relief here than anywhere else. On the other, China's commercial stake is larger here than anywhere else.

As in the other cases, China has taken great measures to minimize its losses. As Venezuela's downturn began to accelerate in 2014, the China Development Bank (CDB), which handled most lending there, faced a stark choice. Kaplan and Penfold (2019) write that:

¹³ Author's own calculation based on methodology outlined in the "Resource-Backed Loan" section of this chapter.

¹⁴ The IMF estimates that in 2011 dollars (purchasing power parity), Venezuelan per capita output fell from \$17,040 in 2014 to \$9,595 in 2018 (International Monetary Fund, 2019d).

¹⁵ United Nations High Commissioner for Refugees (2019). Population of 31 million as of end of 2015 per World Bank (2018c).

Without reform, China was walking a delicate financial tightrope in Venezuela. If Chinese policy banks had cut their financing to Venezuela out of concern that the country's historic crisis would jeopardize its debt servicing capacity, a likely default would have impeded the flow of Venezuela's oil shipments to the Middle Kingdom. Chinese policy banks were thus willing to renew tranches under the original joint development financing scheme (FCCV) to foster debt repayment, but did not offer Venezuela any new funding facilities. (27-28)

The "joint development financing scheme" was the China-Venezuela Joint Fund (*Fondo Conjunto Chino-Venezolano*, "FCCV"), a fund through which CDB's oil-backed loans were routed. Faced with the prospect of losing some of the oil it had originally anticipated, China opted to extend \$9B in credit to the FCCV during Xi Jinping's 2014 visit to Caracas. Notably, none of the new credit was oil-backed; these were cash loans to roll over \$9B in previous tranches. As Kaplan and Penfold (2019) put it, "China's policy banks did not offer any new loan-for-oil deals because they first wanted to recover their oil collateral on previous bilateral debts before extending any new funds" (28).

The crisis continued to deepen, however, and China had take additional measures. In 2016, Beijing agreed to a two-year moratorium on principal repayment and rescheduled interest payments according to a more forgiving timeline (Kaplan and Penfold, 2019, pp. 30–31). This combination of using cash loans to support resource-backed loans and loosening repayment terms was similar to what was concurrently being done in Angola, but under more difficult circumstances. At the same time, Beijing disbursed \$2.2B of the \$9B credit line extended in 2014 with the goal of boosting crude production (Ulmer, 2016). The repayment moratorium and loans toward crude production were clearly not the debt forgiveness many Venezuelans might have hoped for, but neither were they complete stonewalling that might have alienated the Venezuelan leadership. Kaplan and Penfold (2019) also situate the moratorium in the context of China's broader diplomatic outreach to developing countries

as a “South-South” partner—not so strict as to make it look like China were abandoning a friend, but not so lax that it looked China were propping up a regime on which neighboring Latin American governments were beginning to turn (31).

This basic policy has since continued. Nicolás Maduro returned from a September 2018 visit to Beijing with \$5B in new credits; the Venezuelan Minister of Finance told reporters that the loans could be repaid in either cash or oil (Bloomberg News, [2018](#)). If this is true, then it is a sign that China is holding out hope that Venezuela’s crisis could bottom out and oil shipments toward debt repayments could rebound. China is also doubling down on a series of joint ventures between the China National Petroleum Corporation (CNPC) and Petróleos de Venezuela, S.A. (PDVSA); state oil companies from China and Venezuela, respectively. Cash infusions to these joint ventures could boost production and improve repayment capacity (Ulmer, [2016](#); Kaplan and Penfold, [2019](#), pp. 33–34.) CNPC even boosted its ownership stake in the largest joint venture, Sinovensa, from 40 percent to 49.9 percent, just short of the maximum allowed by Venezuelan law. Sinovensa blends heavy Venezuelan crude with lighter fuels to create a medium blend suitable for Asian refineries; the implications for China’s loans-for-oil are fairly clear (Blanchard and Ulmer, [2018](#); Kaplan and Penfold, [2019](#), pp. 33–34.) This is not a debt-equity swap *per se*—the deal does not immediately erase any debt—but it does aim to use equity investment to eventually whittle away at Venezuela’s oil obligations. As is true for debt-equity swaps proper, this option represented a medium between writing off debt—a non-starter given China’s financial and energy security interests—and not renegotiating at all. Given the implosion of Venezuela’s economy, it was probably China’s best chance of minimizing its losses.

Only in the immediate prospect of default on billions in oil-backed loans did China even

begin to reschedule them or provide cash infusions toward repayment, and this in the midst of one of the most urgent economic crises in living memory. Contrast this with the series of write-offs and renegotiations for non-resource-backed projects, and it is clear that China takes commodity-collateralized repayment particularly seriously. However, there have been two exceptions: Ghana and Sudan.

First is the relatively simple case of Ghana. The recipient of a planned \$3B oil-backed loan package, Ghana had only received the first of two \$1.5B tranches when oil prices collapsed in 2014 and the Ghanaian leadership began to have doubts about the loan. Ghana did not renegotiate the terms of the \$1.5B it had already received, but it did opt not to borrow the second half. This was Ghana's decision and does not represent any intent on the part of China, although China might have been spared the headache of debt renegotiation in the long run (T. Chen, [2016](#)).

The only true example of a resource-backed loan write-off, then, may have taken place in Sudan. Between 2004 and 2009, China put \$1.45B in oil-backed loans into various Sudanese infrastructure projects. Under international sanctions due to human rights abuses and the Darfur crisis, the Sudanese government had little access to capital and posed a relatively high credit risk. In 2001, China wrote off \$40.1M in Sudanese cash-based debt, or over half of the owed to China at that point. Another \$70M was written off on February 2, 2007; two days later, Exim agreed to back a new gas-fired power plant with an oil-backed loan to the tune of \$518M. While the lack of transparency surrounding these deals means that it is not immediately apparent whether the debt written off in 2007 was cash or oil-based, the evidence would point to cash: cash loans through 2006 amounted to \$1.75B, as opposed to \$94M in loans-for-oil. Then, in 2010, China wrote off a \$5.9M zero-interest loan dating back to 1995 (Dreher, Fuchs, Parks, et al., [2018](#)). This situation was essentially

similar to what happened in the Republic of the Congo, where write-offs of cash debt cleared the way for oil-backed loans.

The loans-for-oil scheme took a serious hit in 2011, however, with the independence of South Sudan. Most of Sudan's oil deposits had been in the South, and its capacity to repay oil loans was seriously compromised. Sudan attempted to make due by renegotiating transit fees for oil passing from landlocked South Sudan to the (North) Sudanese coast, but this was still only a fraction of the revenue necessary to service the loans. In January 2012, the transit fee dispute led South Sudan to shut down crude production, and an ensuing armed conflict further damaged output (U.S. Energy Information Administration, [2019](#)). The following month, China granted Sudan a five-year delay in repayment. It was clear that Sudan could no longer meet the volume of crude production originally expected, but Beijing was holding out hope that the debt could be slowly whittled down, anyway. Beijing promised further forgiveness if peace could be reached in (North) Sudan's southern regions; in other words, a peace settlement that increased oil production might be worth forgiving cash-based debt (Reuters, [2012](#); Sudan Tribune, [2012](#)). A peace settlement did come by the end of the year, but this only partially mitigated the reality that Sudan had lost most of its oil. In 2014, an official at the Sudanese Ministry of Finance announced that the loans were being commuted to a "more convenient timeline," although further details were not forthcoming (Sudan Tribune, [2014](#)). By 2017, Sudan had already missed the five-year window granted in 2012, and \$2B in debt was reportedly still on the books. In 2018, China announced \$88M in grants to Sudan alongside a \$160M write-off (Kratz, A. Feng, and Wright, [2019](#); Sudan Tribune, [2018](#)). Details are, as usual, sparse, but it is possible that this write-off was for the oil-backed loans. If so, this would be the only instance in which China has forgiven a resource-backed loan. Even in the depths of Venezuela's crisis, there was

still oil in the ground, and China would be sure that it would be drilled toward repayment. Only in the Sudanese case did the borrowing government completely lose access to (most of) its oil.

8.3 Conclusion: Distressed Debt

Distressed debt presents the lender with a second iteration of the initial choice between imposing tougher terms to secure one's own interests and maintaining good will in the recipient country. In countries where China has few interests other than diplomacy, debt forgiveness is the overwhelming favorite. China will be especially understanding to states willing to move their embassies from Taipei to Beijing, although this happens only occasionally due to the simple fact that states which recognize Taiwan have rarely borrowed from the mainland. However, this changes with the introduction of other interests. Resource-backed loans are almost never written off. This supports the underpinning microfoundation of the theory (Chapter 3) that interests directly related to financing terms—meaning, financial return or collateralization thereof—lead to tougher enforcement terms, but those unrelated—diplomacy, for example—lead to laxer terms. In many bordering states or states with value to strategic navigational routes, China faced a tug-of-war between these two alternatives. It could preserve its positive image in borrower capitals, or it could protect the billions of dollars that were in some cases at stake, but doing both was tricky. Outcomes varied by country based on the respective weight of geostrategic and commercial interests. In some instances, China and the partner country were able to work out cleverly crafted solutions to guarantee China's specific interests while otherwise remaining friendly to the borrower country. For example, China relinquished all of its claims on disputed territory with Tajikistan except those necessary for border security *vis-à-vis* Afghanistan and in the process

wrote much of Tajikistan's debt, thereby maintaining healthy relations with a partner in a restive border region. The same goes for the deal with Sri Lanka under which China Exim was able to simultaneously recoup at some of its losses and lower Sri Lanka's debt burden by transferring debts to a Chinese firm, which in turn gained control of the Hambantota-based competition to its more profitable operations in Colombo.

This tug-of-war between competing interests exists to a certain extent for all states (or international organizations) engaged in overseas development finance, but this chapter and those before it have shown that China handles it quite differently from most who have come before. The next and final chapter summarizes this dissertation's findings and lays out new issues which merit further investigation.

Chapter 9

Conclusion

This dissertation's theory is simple at its core but manifests itself in complex ways. All else equal, diplomatic and geostrategic interests lead to laxer terms as the donor is incentivized to maintain good relations with the borrower. There is an exception if political risk mandates stricter terms for projects of geostrategic significance that simply need to be built. Commercial interests, on the other hand, lead to greater financial stringency as the donor can use terms and conditions to lock down export opportunities for its firms, access to critical goods, or both. Again, there is an interactive term between resource security and political risk as tougher terms become more necessary to push commodity firms into the most difficult business environments.

How these predictions map onto the Chinese case, though, is much more complex. Confounding factors include intra-Chinese institutional divides and different subtypes of national interests within broader categories such as “diplomatic” or “geostrategic.” These shades of difference are both a source of complexity and a source of variation which was tested against the theory. In the concluding section, I move beyond the basic hypotheses to

look in-depth at some of these subtle differences and how they relate to the basic projections of the theory in ways that would have been difficult to project *ex ante*. First, I look at shades of difference within the dependent variable, summarizing findings for individual types of financing both in isolation and in relation to each other. Second, I look at differentiation within the independent variables, turning to topics such as different types of diplomatic interests or the divide between raw geographic measures of geostrategic importance and China's interpretation thereof through the Belt and Road Initiative. Third, I list potential areas for future research.

9.1 Summary of Findings: The Dependent Variable

This dissertation has arranged China's numerous financial tools in terms of stringency and generally found that less stringent tools are better for diplomacy or outreach to geostrategic partners but that tougher tools can manage risk and lock down commercial interests. How this works in practice is contingent on China's history and internal bureaucracy.

9.1.1 Grants and Zero-Interest Loans

The most basic part of China's overseas development finance bureaucracy is the government ministries, especially the Ministries of Commerce and Foreign Affairs, which traditionally handle grants and zero-interest loans. These aid-like flows were predicted to be aimed at geostrategic partners or general diplomacy, with the caveat that zero-interest loans are obviously more stringent than grants and might serve as a negative signal. This was largely found to be the case, especially for diplomatic variables. Case studies further revealed slightly different causal mechanisms underlying this relationship. Most obvious

would be a simple transaction of aid for diplomatic support on a particular issue. This was certainly the case for Cambodia on the South China Sea, for example, or for Burundi on several different issues of interest to China. There may also be an element of longer-term relationship-building independent of any immediate United Nations vote or controversy. In some instances, aid can carry overtones of ideological affinity. Burundi's Presidential Palace, for example, was completed even as many other donors were nervous about trends toward unrest and repression. This is not always the case—China gives aid to many countries which are ideologically different from it—but the doctrine of “non-interference” does continue to carry some weight among governments in which many outsiders might see it fit to interfere. Highly concessional flows and grants in particular can also be meant to directly strengthen a partner country. This might happen in a generalized way, as for financial support for the regime in Burundi; or in a particular way, as for aid to Pakistan's all-important law enforcement and counter-terrorism activities.

9.1.2 Contracts, Loans, and Equity

For larger projects, a greater number of actors enter the picture. Banks are frequently necessary to source large volumes of capital. Being almost all state-owned, the banks are often forced to strike a balance between their own interests and the government's foreign policy goals. State-owned firms must strike a similar balance, often with help from the banks.

Perhaps counterintuitively, it is generally a positive for bilateral relations when the government does *not* get directly involved in firm activity. To begin with, debt can be contentious, especially when bills come due. In China's case, potential repayment controversies are magnified by the procurement model. Tied lending means that Chinese firms face no cred-

ible competition and can inflate costs, cut corners on quality, or even engage in corruption with few consequences. This increases Chinese corporate wealth and can be a positive for commercial interests, at least in the short term, but can also lead to anti-China backlash in the host country. This happened in Ecuador, for example, with a series of faulty dams. Where the Chinese government is less directly involved, firms face actual incentives to perform well. Where they do not, they suffer consequences, as happened for Beijing Construction Engineering Group (BCEG) when it was booted from the Kigali Convention Centre for substandard work. BCEG's departure represented a commercial loss for China but kept Sino-Rwandan relations from deteriorating further; the same is true for other firms which do not live up to their contracts. Then, even firms acting on a freelance basis may receive some indirect government support such that the host country receives an indirect subsidy. Because China's state-owned construction sector is routinely subsidized with tax breaks and cheap state credit—and because China is a lower-cost country in general—Chinese firms are typically the bargain of choice for cost-conscious developing country governments, even when Chinese banks are not putting up money. Heavily subsidized Huawei and ZTE, then, have become the default options for developing countries hoping to upgrade their telecommunications infrastructure and in the process have become visible symbols of Chinese contributions to local growth. In the roads sector, no less a figure than Paul Kagame has acknowledged the distinction between contractor nationality and funder nationality. Official PRC documents make it clear that Beijing sees its freelancers as a diplomatic asset. Freelancers can even go to countries which recognize Taiwan, thereby providing a way around Beijing's prohibition on official funding to these governments.

Because of these downsides of loans, they are usually reserved for voids left unfilled

by contractors, which in turn means areas of higher risk. This was seen both in cross-national quantitative analysis and within-country, cross-sector case studies. Furthermore, they are not targeted at all unpopular areas; instead, they go to ones that are of either geostrategic (H3B) or resource security (H4B) significance. So, loans were used to back remote, landslide-prone alpine portions of Pakistan's Karakoram Highway, but local funding or even the British government handled more workaday projects further south. In the commodity sector, resource-backed loans—the strictest deals of all—went predominantly to countries like Ecuador which took measures to decrease investor confidence in previously established contracts, but not to lower-risk countries like Peru. The contrast between resource-backed loans and other modes of entry reveals different causal mechanisms behind the theory. Ecuador received resource-backed loans both because Chinese firms demanded oil collateralization to handle the fiscal risk of a serial defaulter; and because Ecuador had little choice but to accept.

Large-n analysis confirmed the risk-management value of tied loans and even greater risk-management value of tied, resource-backed loans. Smaller-n analysis of details of individual loan contracts, where publicly known, confirmed this. Useful information came from both more conventional loan terms such as interest rate and payback period; and unconventional ones like variation in procurement.

Available information on interest rates and payback periods, while incomplete, did where available support the prediction of interactive effects between political risk and geostrategic interests (H3B); and political risk and resource security (H4B). For resource security, the resource-backed components of China's financing to Ecuador uniformly carried lower interest rates than the cash components, indicating that China Development Bank saw oil collateralization as mitigating their risk profile. What's more, as Ecuador ran out of oil later in

its borrowing cycle, the differential in interest rates between oil-backed and non-oil-backed packages decreased. In other words, the risk-management value of oil collateralization is proportional to the amount of oil available to be pledged.

This picture is somewhat more complicated for the interaction between political risk and geostrategic interests. Resource security and political risk both lead to tougher terms, meaning their effects on development finance tend to be mutually reinforcing. Geostrategic significance, though, leads to incentives toward laxer terms because the donor must remain in good enough standing to maintain access to strategic throughways. Where political risk necessitates debt, this leads to a dilemma: the financier must be tough enough to push firms into carrying out the project, but not so tough as to upset the host government. A comparison of Ecuador and Pakistan proves the point. Ecuador is not a major part of China's geostrategic vision, but has significant oil, which was the target of oil-backed loans at high (6.0-7.5 percent) rates of interest. Pakistan is a major part of China's geostrategic vision but has few domestic commodities. So, China did use debt to mitigate the political risk of doing business in Pakistan, but for geostrategically important projects did so on highly favorable terms. Roads to China were funded at interest rates around 2 percent, below the rate of inflation. Some interest and even principal was written off for the all-important Gwadar complex. The use of tied debt protected Chinese firms operating in Pakistan, but the banks themselves were operating at a loss, probably at the central government's behest. Similar patterns were seen in Kazakhstan, where China subsidized the continued operation of a trans-Eurasian railway but charged relatively high interest for a commuter rail project without geostrategic significance.

Then, a second set of less characteristically Chinese risk management tools similarly varied in response to the independent variables. Namely, a minority of Chinese lending is done

by commercial banks, which while state-owned act more like private organizations in that they are expected to turn a profit and operate on more market terms. The same goes for CITIC, the sovereign wealth fund. CITIC and the commercial banks were more likely to collaborate with third-country banks and more likely to hire non-Chinese contractors. These organizations maintain some recipient government control of project operations and thus represent less of an imposition on them. They also scarcely ran into the issues with cost inflation, quality control, and corruption associated with the tied procurement model used by the policy banks, CDB and Exim.¹

If freelance contracting is favorable to the recipient and debt is less so, then equity comes out somewhere in between. Legal ownership does ask something of the host government but is ultimately less significant than debt payments which can have a much more deleterious effect on the economy. The large-*n* results for equity place it in an ambiguous middle ground—not quite oriented toward diplomacy, but not overwhelmingly commercial either. In practice, individual equity deals could fall closer to one end of the spectrum or the other. In some cases, Chinese firms took on substantial financial risk to the host country's benefit. This was more likely to happen where projects had broader significance to Chinese foreign policy goals, such as StarTimes' investments in African television broadcasting. In other cases, equity might even be offered in conjunction with some debt to the host government. This hybrid model was used in cases where there was an incentive for China to stay on friendly terms with the host government but there was also quite a bit of risk. Some of the higher-risk power projects in geostrategically important Pakistan fit this pattern, as did the leveraged buyout of geostrategically important Kazakhstan's KazMunaiGas.

Some variation in equity investment also came from the nature of the firm. The nature of

¹There were unfortunately too few commercial bank loans in the data to definitively analyze them quantitatively.

China's domestic political economy is such that large state-owned firms and a few large, prominent private firms enjoy preferential access to low-interest state credit, while smaller provincial or private organizations do not. Overseas, this manifests itself as differences in the ability to contribute to host country growth. In Kazakhstan, for example, giants like CNPC spent billions at a time on oilfield assets and built new pipelines to match, while private firms like Xinjiang Guanghui made smaller deals using trucks as transportation. The privilege bestowed upon anointed firms within China was effectively transferred to host governments who benefited from their largesse.²

9.1.3 Distressed Debt

The continuum of development finance stringency makes a second appearance in the event that borrowers have trouble repaying loans. The best possible outcome for the borrower would obviously be a write-off. Short of this, restructuring via delaying repayment and/or breaking the payment stream into smaller installments can provide a next-most favorable option. In rare instances, China has also substituted equity ownership for debt. Like equity itself, this is an imposition on the recipient, but not as much of one as leaving debt on the books and prolonging the borrower's crisis.

The findings for this section were the same as for China's initial market entry decision. Commercial interests were found to lead to tougher terms. Larger packages were less likely to be written off—or if they were, it was only a small portion of the total volume due. The most basic commercial interest, repayment itself, was not easily sacrificed in the absence of other countervailing factors. Resource-backed loans were also almost never written off. Given China's long-term structural vulnerability to global commodity price

²Financing information for equity deals is not available in any kind of comprehensive way, but known cases do fit theoretical predictions.

shocks, it makes more sense to leave these arrangements in place and simply accept that they will underperform during periods of low prices and could perhaps regain lost ground if prices rebound. In some instances—Venezuela is an important one—China also lent or invested money in commodity production capacity. If these arrangements do indeed help to repay the initial resource-backed loans, then the new loans constitute a *de facto* restructuring whereby resource-backed loans are commuted to regular cash loans. This is less demanding of the borrower than resource-backed loans themselves but does not actually sacrifice China's commodity security interests.

On the opposite end of the spectrum are countries where diplomacy is paramount. Where resource and geostrategic interests are not at play, China tends to use smaller and more concessional financing packages to begin with. This means both that commercial interests are more limited—less loss is associated with write-offs—and that diplomacy is being emphasized to begin with. It thus comes as no surprise that the balance tips toward debt forgiveness in these countries, many of which are lower-income and more apt than most to appreciate the value of write-offs. China displayed even greater leniency where recipients' stances on Taiwan or the South China Sea were at play, as happened, for example, in Cambodia.

Finally, geostrategic variables represent an intermediate. Smaller packages were written off for similar reasons to the diplomacy-only cases: bilateral relations with these countries are simply worth more than the repayment of small financing packages. Larger packages were more likely to be restructured instead. The only two debt-equity swaps in the sample set also belonged to this category, paralleling the strong attraction of equity investment in general to geostrategically important countries where China wants to build projects without burdening recipients with debt.

9.2 Summary of Findings: The Independent Variables

One of the benefits of focusing on one large donor over many different ones is the ability to study more detailed national interests than be easily replicated cross-nationally. While perhaps not as distinctive as China's tools of financing are from those of more established actors, China's foreign policy goals were in this work elaborated in greater detail than can be provided by basic categories such as diplomatic alignment or commercial interests. This section summarizes the within-category findings of three independent variables: 1) diplomatic interests; 2) geostrategic interests; and 3) commercial interests.

9.2.1 The Hierarchy of Diplomatic Interests

Cross-national studies frequently use United Nations General Assembly voting patterns as the basis for measurement of diplomatic alignment or coincidence of interests. This has the benefit of being easily comparable across all UN members but is limited by the scope of UN votes, most of which are not particularly relevant to any given country. In China's case, we find a hierarchy of interests. The Taiwan issue is consistently the most salient. While it only applies to the small number of countries which either maintain embassies in Taipei or might consider switching, it is definitively important in these countries. The prohibition on extension of official finance to these countries is one of the few iron-clad rules in a system that does not emphasize the rule of law. The only obvious exceptions have to do with states which were either in the process of changing recognition or appeared to be considering it. Beijing sees the Taiwan issue as a matter of domestic sovereignty and prioritizes it over more "foreign" issues. The notable exception was for freelance contractors, who because they do not receive project-level finance from the PRC government are not bound by official development finance rules. These actors are able to extend their role

as unofficial goodwill ambassadors to states which cannot be reached by their officially sponsored colleagues.

After the Taiwan issue comes the South China Sea. Beijing also claims most of the features of the South China Sea, but the generally uninhabited islands pose fewer problems for China than the public of Taiwan, which has little interest in being part of the PRC. The South China Sea dispute is thus not so overwhelmingly strong a predictor of Chinese policy as Taiwan recognition, but it is still fairly substantial.

The role of aid in both the Taiwan and South China Sea issues can be seen in a pattern contrasting disputants and non-disputants. Countries at odds with Beijing—by maintaining either embassies in Taipei or South China Sea claims overlapping the PRC's—receive systematically fewer grants and zero-interest loans. However, looking within Ministry of Commerce aid flows, disputants receive a higher *proportion* of grants over zero-interest loans. These reflects mixed incentives when using aid to change states' behavior. On one hand, extending aid could be perceived as tacit acceptance of a state's position; on the other, not extending aid does not incentivize any change in behavior. China's answer is to generally avoid aid unless a change in policy appears possible, and then to issue it on as favorable terms as possible so as to demonstrate the benefits of coming to see things Beijing's way.

Following the Taiwan and South China Sea issues are a series of smaller issues and general alignment as operationalized via UNGA voting. UNGA voting was found to be positively correlated with grants (in some specifications) and freelance contract revenues, but was generally a less reliable predictor of Chinese activity than the Taiwan or South China Sea issues. Case study evidence also reveals a more significant role, at least in recent years, for Xinjiang. Unlike Taiwan or the South China Sea, PRC control over Xinjiang is not

actively disputed, but a major campaign of repression there has damaged China's international image. This is difficult to measure cross-nationally, not least because it has come to the forefront only recently,³ but case study evidence shows that it is playing a significant role. The contrast between Burundi's and Rwanda's stances on Xinjiang shows the power of aid to persuade. In a different way, the specter of instability in Xinjiang has motivated Chinese aid to Kazakhstan and Pakistan, whose internal dynamics have a (potential) direct bearing on events on the PRC side of the border.

9.2.2 Geostrategic Interests: Geography vs. the BRI

As discussed in Chapter 2, geostrategic importance is to a certain degree in the eye of the beholder. All would agree, for example, that the Bosphorus is a strategic waterway, but Russia and Turkey pay more attention to it than do Japan or the United States. In China's case, geostrategic interests have been articulated through the Belt and Road Initiative, which lays out a series of navigational corridors designed to both facilitate commerce and create more secure alternatives to prone maritime chokepoints.⁴ Along given geographic corridors of interest, different countries might or might not be designated as part of the Belt and Road. Djibouti, where China has a naval base, counts. Yemen, just across the Bab-el-Mandeb, does not.

These two types of geostrategic significance—the more objective one based on geography, or the subjective one based on constructed foreign policy goals—affect development finance in slightly different ways and based on different causal mechanisms. Raw geog-

³As of this writing, data on many independent variables and some types of Chinese financing is not yet available for years in which major diplomatic statements were made about Xinjiang.

⁴Later iterations of the Belt and Road strategy have been more global in scope and expanded beyond the original Eurasian focus. I instead look more at the Belt and Road in its original, more geopolitically salient formulation.

raphy in the form of bordering China or location along a maritime chokepoint was found to affect the allocation of zero-interest loans, freelance contracts, and equity investments. In bordering countries, grants are favored over zero-interest loans both to maintain good relations with neighbors and, as could be seen in the Kazakhstani and Pakistani cases, to actively build capacity in areas like law enforcement which are important to border security. Contractors and equity investors were drawn to maritime chokepoints not just because the Chinese government might have encouraged this activity but also because countries at these locations present inherent commercial opportunity.

BRI designation was more important for equity investors and lenders, the latter category increasing in importance with political risk. Chinese state-owned firms exist in something of a gray area between their “state-owned” and “firm” identities. Sometimes they act on their own (profitable maritime chokepoints), and sometimes they might be nudged to act in state interests (the BRI). State-owned banks, on the other hand, answer more directly to the government and are used to plug gaps where political risk prevents firms from entering on their own. In this case, that meant higher-risk components of the Belt and Road. This could be seen both at the cross-national level via the quantitative results and within countries; again, banks were brought in to handle only the higher-risk components of Pakistan’s strategic throughways.

9.2.3 Commercial Interests: Exports, Imports, and Money Itself

Like diplomatic and geostrategic interests, commercial interests are not a monolith. In China’s case, imports of commodities; manufactured exports, especially in the construction sector; and project financial value itself are all salient. In practice, exports and financial value are highly correlated. Tied procurement means that majorities of contract

value go to Chinese firms, meaning that the value to be repaid to banks and the value to accrue to Chinese firms move together in lockstep. The larger the project, the more stringent China is likely to be in locking down its commercial interests. Table 3.8 at the end of Chapter 3 shows a close relationship between the size of projects and their modality of financing. Grants are the smallest per project, at less than \$10 million per commitment; zero-interest loans, slightly larger at closer to \$30 million per commitment and slightly more stringent; interest-bearing loans are much larger, averaging in the hundreds of millions of dollars; resource-backed loan packages average above \$1 billion. This pattern made a second appearance in the analysis on distressed debt, which is much more often written off for smaller, more concessional items.

Chinese export motivations and the value of repayment—via debt repayment or return on equity—are highly correlated with one another and exist in virtually every deal. So, they are difficult to disentangle statistically. Resource security, though is not a constant and presents statistically measurable variation. In the large-*n* analysis, resource concerns were found to be positive predictors of equity investment across the board and of loans only in the presence of high political risk. The correlation with loans was much larger for resource-backed than for conventional cash-based loans, indicating that resource-backed loans both offer extra protection to lenders against political risk and additional access to revenues for commodity firms. In the aggregate, then, the relative weight of equity and debt skews toward equity in safer commodity-producing markets and toward debt or even resource-backed debt in riskier ones. Just as debt was used to fill out higher-risk parts of the Belt and Road, it was also used to enter higher-risk commodity-producing markets. This could be seen cross-nationally both in the statistical analysis and in the comparison between Ecuador and Peru. It was also true within-country. Kazakhstan's metals sector, for example, has a

dodgy track record of corporate governance and relationship to state actors, and China involved itself there mostly through debt, but Chinese firms were willing to make large equity investments in the more established, stable oil and uranium sectors. The inverse was true in Ecuador, where government impingement on previously agreed-upon oil contracts necessitated oil-backed loans, even while Chinese firms were making equity investments in the politically less central copper sector.

9.3 Areas for Future Research

This work has provided a relatively complete accounting of Chinese development finance, but it is always possible to do more. Indeed, Chinese development finance is a moving target and continues to rapidly evolve. In this final section, I address four areas that could be better addressed in future works. First, the two causal mechanisms linking political risk to stringency—demand for risk management from the lender versus lack of competition in riskier markets—were both found to be significant in this work but might be better disentangled using specifically focused methodologies. Second, while this dissertation has focused on the determinants of different types of Chinese development finance, it has only in passing looked at their effects. Third, Chinese development finance is evolving toward a more equity-centric, (perhaps) financially sustainable model. How far this trend goes is an open question but it should certainly shape future research. Fourth, while China's domestic political economy is unique enough to inhibit perfect comparison, some useful lessons might be drawn from comparison with other emerging financiers.

9.3.1 Competitive Dynamics

Competition with other major financiers permeates this work. Ecuador's resource-backed loans came about because of the government's rupture with the Bretton Woods institutions, bond markets, and (to a certain degree) private oil companies. Peru's lack of resource-backed loans, then, was the product of competition between numerous parties. This competitive effect is closely correlated with the financier's inherent incentive to demand more protection in riskier markets and is difficult to disentangle, but future work could attempt to do so. Research so far has focused more on the effect of Chinese financing on Western or Bretton Woods policy, finding that Chinese money does in fact compete in the same markets as Western bilaterals and leads to weakened policy conditionality and a smaller democratizing effect thereof (D. Hernandez, [2017](#); Kilama, [2016](#); X. Li, [2017](#)). This would seem to be putting the cart before the horse, though, since the World Bank arrived on the scene long before China. Urdinez et al. ([2016](#)) do find that countries in Latin America where US influence waned in the 2000s did tend to turn toward China, but many of these (Venezuela, Ecuador, etc.) also experienced institutional changes which deterred investors, and this does not necessarily speak to the *type* of financing extended from China. More work could be done to fill this gap in knowledge.

9.3.2 The Effects of Chinese Development Finance

Through its focus on development finance stringency, this work did incidentally illustrate that certain types of financing might be more prone to negative outcomes. Tied procurement, for example, limits competition and enables firms to bypass quality standards or engage in corruption without any real fear of consequences. Chinese firms' troubled hydropower deals in Ecuador would be leading examples. Resource-backed loans can also

multiply a country's inherent vulnerability to commodity price downturns. Equity investment, on the other hand, did not exhibit the same tendencies; nor, for the most part, did non-tied commercial loans. Works such as Russel and Berger (2019) already point to these differences, and future research should systematically assess them.

With respect to raw economic output, de Soyres (2018), de Soyres, Mubdalic, and Ruta (2019), and Dreher, Fuchs, Hodler, et al. (2014) find a positive effect of Chinese financing on growth, although de Soyres, Mubdalic, and Ruta (2019) caution that in some cases the additional output might be outweighed by the cost of infrastructure. This aggregate positive effect probably masks substantial heterogeneity. Similar work should be done to isolate the effects of aid, equity, tied loans, and resource-backed loans. This newer work could also integrate risk analysis, especially given infrastructure's sensitivity to shocks to global trade and resource-backed loans' exposure to commodity price fluctuations.

With respect to corruption, Isaksson and Kotsadam (2018) find that Chinese finance is affiliated with greater corruption at the local level. This does not actually speak, though, to the national level. It would be difficult for any one project to influence national politics, but over the longer term large aggregate outflows could conceivably do so. Such an effect would probably be easier to detect by separating out higher-risk categories such as tied loans from lower-risk ones like equity.

9.3.3 Changes in Chinese Development Finance

Some of the patterns identified in this dissertation may be subject to change over time. As the problems with tied procurement and resource collateralization in particular have become clear with a number of deals gone bad—Ecuador is an example, and Venezuela a better one—some Chinese policymakers have begun to put greater emphasis on these

models' "governance deficit," to borrow the phrase of X. Wang (2017). While the intent of tied procurement was to give firms a guarantee against local risk, it has also enabled bad behavior such as poor planning of unprofitable projects, insufficient consideration of social and/or environmental factors, weak quality control, and corruption. If left unaddressed, these problems could damage the Belt and Road's brand name and lead to a degree of partner country distancing. At the same time, China's export boom and inexorably rising foreign exchange reserves are a thing of the past, and the national budget constraint has tightened along with the domestic slowdown (Rolland, 2019).

A number of measures are being taken in response. One is a new China International Development Cooperation Agency (CIDCA) overseeing grants, zero-interest loans, and some concessional loans. As of this writing, CIDCA is still in its early stages, and most of China's aid budget remains with the Ministry of Commerce. There are substantive countervailing factors that might stand in the way of its full implementation. Especially as China's economy slows, the incentives toward economic stimulus are only strengthening. Not bailing out firms in trouble could potentially cost Chinese jobs, and it remains to be seen whether the government will refrain from assisting firms struggling with problems of their own making (Rudyak, 2018; Wingo, 2019c).

Another set of changes focuses on improving firm incentives earlier in the project cycle, before problems emerge. In general, there may be a shift away from tied procurement and toward debt. Already, Chinese debt outflows peaked in 2013-2014 (Atkins et al., 2017; K. P. Gallagher and Myers, 2019). Public-private partnerships under which Chinese firms participate in project management and/or ownership are likely to increase in prevalence as Chinese firms gain experience overseas (Leutert, 2019). Chinese finance may also become less insular. The China Development Bank and Exim have established a series of

regional funds aimed at co-financing with regional institutions; providing capital for equity investment; or both (Myers and K. P. Gallagher, 2019, p. 5). The China-LAC Cooperation Fund's contribution to Peru's Inter-American Development Bank-funded, multinationally-built Metro line is an early example. Co-financing in particular will mean that China cannot impose procurement requirements—Line 2 of the Lima Metro, for example, was mostly European-built—but comes with the benefit of leaving a better impression in the host capital by giving them more autonomy over procurement decisions.

Similarly, the Asian Infrastructure Investment Bank (AIIB) is the first Chinese-led multilateral bank and in some ways has more in common with the World Bank than with Chinese bilateral lenders. The AIIB does not use policy conditionality, and 50 percent of its shares are Chinese-held, but it does require studies in areas like economic impact, the environment, and community relations which have often been lacking for Exim and CDB. It also occurs with substantial foreign participation—most major developed countries other than the United States and Japan are members, and many senior staff come from the World Bank or regional development banks. Most important, it practices open procurement, meaning that (again) the Chinese government cannot force large portions of contract value to its firms but that a variety of problems in project governance are averted.⁵

Even resource-backed loans may be due for an overhaul. Two recent deals in Ghana and Guinea both have Chinese firms taking equity stakes in the relevant mines, meaning that they share more of the risk than under previous arrangements. There is also discussion of modifying the commodity pricing model such that China holds more risk, thereby hopefully avoiding a Venezuela-like scenario in which the borrower simply cannot keep up with payments amid falling global prices. Tellingly, both of these deals are for bauxite, of

⁵For an overview of the AIIB's legal framework, see Lichtenstein (2018).

which China processes over half of the world's supply; and not for oil, a previous focus for which China is one of many consumers and one of many potential investor countries. The experiences of Venezuela, Ecuador, and elsewhere may be leading bureaucrats in Beijing to retrench and refocus resource-backed efforts in countries where it is more necessary (Wingo, 2020b,c).

Across the board, these changes constitute a shift toward a lower risk profile and greater use of equity. It remains to be seen whether the newer modes of business grow beyond their current modest shares of China's overall portfolio, though. At the moment, the old tied debt model remains quite strong, raising the possibility that China could be moving toward a "two-track" system in which the AIIB or regional funds handle different types of projects than the bilateral organizations. Future work should focus on this trend, especially as information about new methods of doing business shifts from hypothetical to empirical.

9.3.4 Other Emerging Financiers

China's outflows drastically outpace those from other emerging financiers, and this work has covered the lion's share of non-OECD financing. However, China is not entirely alone. Other members of the BRICS are active in development finance, as are Malaysia, Turkey, and the Persian Gulf states, to name a few. Parts of this dissertation's findings may apply to other cases, but China's distinctive domestic political economy presents a challenge. Brazil's Banco Nacional de Desenvolvimento Econômico e Social (BNDES), for example, serves a similar function to the China Development Bank but differs in that its clients are mostly private firms, albeit private firms with close relationships with the state. How connected financiers and firms are to the state varies cross-nationally. In India, for example,

there may be a greater degree of distance. In the Persian Gulf monarchies, ruling families may directly own relevant organizations. This presents an opportunity for cross-national analysis building on this dissertation's framework.

Another of China's quirks, the limited role of law in economic governance, presents another opportunity for cross-national analysis. Some countries, like Brazil or Russia, may nominally operate according to the rule of law but frequently find it circumvented by corruption. Others may more strictly adhere to it. These different sets of countries might exhibit different levels of tolerance for late repayments of loans or requests for extralegal payments to government leaders, for example. This in turn will affect the risk profiles of their overseas portfolios and what types of financing are used.

Rule of law could be considered a subset of a third type of variation: beliefs. This dissertation has not firmly sided with either materialists or constructivists, but more could be done to illuminate the role of ideas on how to best promote growth and development. There may be a degree of variation within China, with organizations like CITIC and the People's Bank of China making occasional appearances as more pro-free market actors. However, much more variation would appear in a cross-national comparison. There also exists useful variation over time. China's nascent turn toward more open procurement models and more equity investment could yet constitute an ideational change for at least parts of the establishment in Beijing. Comparison cases for this change are not necessarily currently emerging financiers so much as past ones. Japan and South Korea have historically shown less aversion toward tied aid and resource-backed loans.⁶ This (shrinking) degree of intra-OECD variation could also be juxtaposed with the Chinese case. Going further back in history, some Western states also tied aid during the Cold War era but have clearly changed

⁶Of the two, Japan has gone much further in phasing out tied loans. Both sometimes use resource-backed loans.

their thinking over time. This dissertation's focus on China has substantially broadened the scope of existing theory, and more could be done yet.

Chapter 10

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